

Former HMP Gloucester Gloucester Gloucestershire

Archaeological Evaluation



for
City & Country

CA Project: 5580
CA Report: 15811

November 2016



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SUMMARY

Project Name:	Former HMP Gloucester
Location:	Barrack Square, Gloucester, Gloucestershire
NGR:	Centred on SO 8270 1850
Type:	Evaluation
Date:	12 October 2015 to 28 October 2016
Location of Archive:	To be deposited with The Museum of Gloucester
Accession Number:	GLRCM 2015.31
Site Code:	GPG 15

An archaeological evaluation was undertaken by Cotswold Archaeology between October 2015 and October 2016 at the former HMP Gloucester, Gloucester, Gloucestershire. Sixteen trenches were excavated.

The archaeological trenching identified significant deposits and structural remains associated with the medieval Gloucester Castle, including the walls of three sides of the substantial 12th-century keep, an associated forebuilding and part of one of the inner bailey walls. The large inner defensive castle ditch was also identified.

The evaluation also encountered structures and deposits relating to the use of the site as the County Gaol in the later medieval/post-medieval period, including a number of burials. The extensive well-preserved remains of the late 18th-century prison were also identified, as were numerous features and deposits associated with the later development of the site throughout the 19th and 20th century, including the foundations of an early 19th-century treadmill, structures associated with exercise yards and the early 20th-century execution chamber. Four graves of executed prisoners were also encountered.



1. INTRODUCTION

1.1 Between October 2015 and October 2016 Cotswold Archaeology (CA) carried out a series of archaeological evaluations for City & Country at the former HMP Gloucester, Gloucester, Gloucestershire (centred on NGR: SO 8270 1850; Fig. 1). Following this initial work, two further trenches (Trenches 15 and 16) were excavated between May and October 2016 at the request of Andrew Armstrong, Gloucester City Archaeologist, the archaeological advisor to Gloucester City Council (GCC). The evaluation was undertaken to accompany a forthcoming planning application for the redevelopment of the site.

1.2 The evaluation was carried out in accordance with a recommendation by Mr Armstrong and with a series of subsequent detailed *Written Scheme of Investigation* (WSI) produced by CA (2016a, 2016b ;2016c) that were approved by Mr Armstrong. The fieldwork also followed *Standard and guidance: Archaeological field evaluation* (ClfA 2014), the *Management of Archaeological Projects* (English Heritage 1991) and the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (English Heritage 2006). It was monitored by Mr Armstrong, including site visits on various dates.

The site

1.3 The site is approximately 1.8 hectares in extent and is located on the western edge of the centre of the City of Gloucester. It is entirely formed by the former prison, the grounds of which are hard-standing and partitioned into small areas by high fences. The prison closed in March 2013, and is currently unused. The site is bound to the north and east by civil buildings, comprising Shire Hall and the Magistrates Court. On the western side of the site, beyond the road which borders this side of the site, lies the River Severn. To the south lies refurbished dockside warehouses associated with Gloucester Docks.

1.4 The site is predominately flat, although the ground level does rise in the eastern extent of the site to 12m AOD. Elsewhere the site is typically situated between 10.2m and 11.3m AOD. The underlying bedrock geology of the area is mapped as Jurassic and Triassic Blue Lias and Charmouth Mudstone formations overlain through all but the very eastern limit of the site by Quaternary superficial tidal flat

deposits consisting of clay, sand and silt (BGS 2015). The natural substrate was not exposed within any of the evaluation trenches.

2. ARCHAEOLOGICAL BACKGROUND

- 2.1 The proposed development site has been subject to a preceding Archaeological Desk-Based Assessment (CA 2013) and a Conservation and Development Plan (Purcell 2013). It is not intended to fully reprise these report here, but the following is a summary of their conclusions.
- 2.2 The assessment noted that the site comprises the extant prison that includes a complex of buildings of 18th, 19th, and 20th-century date, which includes a Grade II* Listed core and several Grade II Listed peripheral buildings (CA 2013).
- 2.3 The site lies immediately outside of the Roman city of Gloucester, with the Roman city wall and defences lying to the east. Archaeological investigations to the north of the site recorded a Roman river frontage and quay dating from the 1st century AD, which are likely to have extended through the centre of the site. In the later 2nd/3rd century this river frontage was realigned further to the west, although it probably continued to extend through the current site. As such, there is considered to be a high potential for Roman remains associated with these quays (including the quays themselves and associated early structures and extra-mural settlement) within the proposed development area (ibid.).
- 2.4 The site is situated adjacent to the River Severn, in an area of former alluvial deposits. The assessment noted that any Roman remains would have been constructed upon pre-Roman deposits of alluvium, deposited when the river was in flood. Following the end of the Roman period, and the corresponding abandonment of flood defences, further alluvium was deposited as the River Severn once again inundated the area; such evidence has previously been recorded within the site (ibid.).
- 2.5 Saxon remains in Gloucester are less established than those of the Roman period, but excavations at Commercial Road, to the south of the site, recorded Saxon domestic activity indicative of an established settlement. Given the course of the

River Severn adjacent to the site, there may be some potential for Saxon riverside remains within the site (ibid.).

- 2.6 In the early 12th century, Gloucester Castle was constructed within, and beyond, the current site. The castle was a large structure, with the keep, inner bailey, stables and part of the castle ditch lying within the current site, and the drawbridge and gate lying outwith to the north. The Castle played a part in the Anarchy (1135-53), was a Royal residence under Henry III, and was heavily fought over during the Second Baron's War (1264-7). From the late 15th century the castle was used purely as the county gaol, with many of the ancillary building, excepting the keep, being demolished. The remaining castle buildings were entirely razed in 1785.
- 2.7 Following the demolition of the castle, Gloucester Prison was constructed on the site in the late 18th-century. This was a large building, built between 1787 and 1791 to the design of architect William Blackburn. Subsequent expansion and remodelling of the prison took place in the 19th and 20th centuries until the 1980s. Several areas of the prison are basemented, which is likely to have impacted upon the upper-most levels of archaeology within the site, including potential medieval remains. It is likely that any Roman or putative Saxon remains within the site would occur at depths that later development would not have impacted upon.
- 2.8 From its construction in 1792 through to 1939, a total of 123 prisoners were executed at Gloucester Prison. Although many were buried in nearby churchyards, or their remains claimed by relatives, proscriptions against the interment of murderers in consecrated ground meant that many were buried within the Prison itself. Three areas of graves have currently been identified within the site, although there is considered to be potential for further such graves to exist.

3. AIMS AND OBJECTIVES

- 3.1 The objectives of the evaluation are to provide information about the archaeological resource within the site, including its presence/absence, character, extent, date, integrity, state of preservation and quality, in accordance *Standard and guidance: Archaeological field evaluation* (ClfA 2014). This information will enable GCC to identify and assess the particular significance of any heritage asset, consider the impact of the proposed development upon it, and to avoid or minimise conflict

between the heritage asset's conservation and any aspect of the development proposal, in line with the *National Planning Policy Framework* (DCLG 2012).

4. METHODOLOGY

4.1 The fieldwork comprised the excavation of 16 trenches, varying in size and shape, in the locations shown on the attached plan (Fig. 2). The trenches were set out on OS National Grid (NGR) co-ordinates using Leica GPS, except for Trenches 1, 2, 3, 5, 6, 15 and 16 where, due to the proximity of the extant prison buildings and perimeter wall no satellite signal could be attained. In these instances the trenches were set out by hand, using measurements from existing buildings or structures. The trenches were subsequently surveyed in accordance with CA Technical Manual 4 *Survey Manual*.

4.2 With the exception of Trenches 3 and 12 which were untargeted, the evaluation trenches were located to target specific archaeological features, as indicated in the table below:

Trench	Dimensions	Target
1	20m x 2m	Post-medieval prison burials and medieval castle walls
2	20m x 2m + contingency of 8m x 2m	Post-medieval prison burials and medieval castle ditch. Contingency if burials continue out of original trench.
3	5m x 2m	untargeted
4	5m x 5m	Former execution chamber area
5	3m x 3m	Post-medieval prison burials
6	3m x 3m	Post-medieval prison burials
7	1.5m x 1.5m	Foundations of prison walls
8	1.5m x 1.5m	Foundations of prison walls
9	20m x 4m + 7.5m x 4m	Medieval castle and C18 (Blackburn) prison
10	15m x 2m	Medieval castle keep and C18 (Blackburn) prison
11	20m x 8m	Medieval castle keep and C18 (Blackburn) prison.
12	5m x 5m	untargeted
13	1.5m x 1.5m	Foundations of C19 treadmill building
14	1.5m x 1.5m	Foundations of C19 treadmill building
15	15m x 4m	Medieval castle keep and C18 (Blackburn) prison
16	12m x 4.5	Former outer bailey of medieval castle

- 4.3 All trenches were excavated by mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical Manual 1: Fieldwork Recording Manual.
- 4.4 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites and were sampled and processed. All artefacts recovered were processed in accordance with Technical Manual 3 Treatment of Finds Immediately after Excavation.
- 4.5 The archive and artefacts from the evaluation are currently held by CA at their offices in Kemble. Subject to the agreement of the legal landowner the artefacts will be deposited with The Museum of Gloucester under accession number GLRCM 2015.31, along with the site archive. A summary of information from this project, set out within Appendix E, will be entered onto the OASIS online database of archaeological projects in Britain.

5. RESULTS (FIGS 2-27)

- 5.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts, finds and environmental samples (palaeoenvironmental evidence) are to be found in Appendices A, B and C respectively. Details of the relative heights of the principal deposits and features expressed as metres Above Ordnance Datum (m AOD) appear in Appendix D.

Trench 1 (Figs 2-5)

- 5.2 Initially, the trench was excavated to a depth of 1.85m below present ground level (bpgl), where the earliest deposit encountered comprised dark greyish brown clayey silt deposit 117, which was at least 0.8m thick and contained a quantity of animal bone and pottery dated to the late 17th to 18th centuries. Subsequently, a machine-dug sondage, undertaken following consultation with Mr Armstrong, was excavated through this deposit to a depth of 2.35m bpgl at the north-western end of the trench, where water ingress precluded any deeper excavation. Although the sondage was

not accessible, due to health and safety considerations, for any detailed recording the north-eastern edge of an evidently large feature was encountered, with a number of associated fills visibly tipping down in a south-easterly direction into the feature. No finds were recovered from these deposits.

- 5.3 Within the south-eastern part of the trench, deposit 117 was cut by north-east/south-west aligned ditch 116, of unknown function, which contained charcoal-rich fill 115 from which finds of glass and 18th-century pottery were recovered. Deposit 117 was also partially overlain by ash-rich deposit 114, which extended for a distance of 3.2m along the trench and was up to 0.3m thick. It contained quantities of animal bone, metal objects and pottery of late 17th to 18th-century date and evidently represents waste from a wood-burning process.
- 5.4 Deposit 114 was cut by presumed oval pit 113, which measured 1.8m across within the trench and was 0.2m deep. It was filled by lime-rich deposit 112, from which artefacts comprising glass, metal, animal bone and pottery dating to the mid to late 18th century were recovered. This feature was in turn cut by later pit 111, which was 1.8m long, at least 1.15m wide and contained fill 110 which comprised demolition debris, similar to overlying layer 109.
- 5.5 Layer 109 extended throughout the length of the trench and sealed the aforementioned features and deposits. It predominately comprised loose brick and limestone rubble with various inclusions and was at least 0.8m thick. It contained quantities of artefactual material dated to the mid to late 18th century as well as two fragments of human bone (see Section 7.7 below).
- 5.6 The construction cut for unmortared red brick-built circular well 107 cut demolition debris 109. The well measured 1.7m in diameter and although it was not excavated to any considerable depth, it appeared that it had been finally filled by demolishing the upper courses and infilling the well with the rubble. Sherds of 19th century pottery were recovered from the backfill. Close by, a single layer of bricks, 102, set into bedding layer 103 may have formed a surface associated with the well. These features, together with demolition layer 109, were sealed by levelling layer 101, for overlying tarmac surface 101.

Trench 2 (Figs 2-4 & 6)

- 5.7 Excavation revealed the eastern edge of linear feature 209, presumed to represent the opposing edge to that identified at the north-western end of Trench 1. This suggests the presence of a large ditch, approximately 18m wide, extending on a broadly north-east/south-west alignment through this part of the site.
- 5.8 The ditch cut through a homogenous layer of mid brown clayey silt, 210, up to 0.8m thick, and into a deposit of bluish grey silty clay, 211. Pottery dated to the 1st to 2nd centuries AD was recovered from the former, whilst the latter contained material dated to the 3rd to 4th centuries AD. Two of the exposed fills of the ditch, 207 and 208, also contained small quantities of Roman pottery however the possibility that the finds from these contexts may be residual must be considered.
- 5.9 Layer 210 and ditch 209 were sealed by charcoal-rich layer 206. This material was 0.1m thick however it contained no finds. It was in turn overlain by clay layer 205 which contained 18th-century finds and which was cut by angular pit 203, dating to the 19th century, as well as being overlain at the north-eastern end of the trench by layer 204, representing the same demolition layer as context 109 in Trench 1. The sequence was again overlaid by a levelling layer and the existing tarmac surface. No evidence for the graves depicted on a 1935 Home Office map, and targeted by Trench 2, was revealed.

Trench 3 (Figs 2-4 & 7)

- 5.10 The earliest deposit exposed during the initial excavation of Trench 3 comprised a presumed cultivation soil, consisting of dark grey silty clay 313/314 from which no artefactual material was recovered, at a depth of 0.5m bpgl. With the approval of Mr Armstrong, a machine-dug sondage was excavated through this deposit to a depth of 2.1m bpgl at the northern end of the trench, where water ingress impeded further excavation. Although access to the sondage was not possible due to health and safety considerations, it was demonstrated that the deposit was 0.8m thick and overlay a deposit of soft, wet brown sandy silt, 316, which again contained no visible finds.
- 5.11 At the southern end of the trench, layer 313/314 was overlain by brick and stone rubble deposit 309 which contained a number of well-dressed and shaped limestone blocks, at least one of which had evidently been limewashed. At the northern extent of the trench, layer 313/314 was overlain by layer 315, comprising demolition debris

consisting mainly of brick and limestone rubble, similar to contexts 109 and 204 recorded in Trenches 1 and 2.

- 5.12 Layer 315 and deposits 309 and 313/314 were cut by a series of modern service trenches and the foundation trench for the extant C-Wing, built between the late 1950s and early 1960s. The sequence was sealed by layers of levelling/make-up and the existing tarmac surface.

Trench 4 (Figs 2-4 & 8)

- 5.13 The earliest deposit encountered in Trench 4 was dark brownish grey clayey silt layer 426, which was at least 0.25m thick and contained finds which included animal bone and pottery dating to the 17th to 18th centuries. This was overlain by a layer of lighter brownish grey clayey silt, 425, which measured 0.5m in thickness and contained fragments of clay tobacco pipe and two residual sherds of medieval pottery. This material was in turn sealed by sandy clay layer 421, which was up to 0.4m thick and from which a tool handle fabricated in red deer antler (Ra. 1), which may have Roman, Anglo-Saxon or medieval provenance, was recovered. This artefact obviously occurred residually within this layer.
- 5.14 Along the northern edge of the trench, deposit 425 was cut by the construction cut for east/west aligned red brick arched structure 423, which is presumed to be a culvert. This had in turn been cut through by the insertion of modern ceramic pipe 419, over which wall 416 had been constructed. This wall represents the southern and eastern sides of the brick-built execution chamber that was constructed in 1912. Wall 416 survived to a height of 0.6m over brick and concrete footings 417. The southern part of the wall contained a socket, approximately 0.15m square and 0.12m deep.
- 5.15 The internal elevation of the eastern part of wall 416 was abutted by irregularly shaped concrete base 409, which was 1.1m long, 1m wide and at least 0.4m deep. A similar block of concrete, 404, was present in the north-western corner of the trench where it presumably abutted the western wall of the chamber which apparently lay beyond the western limit of excavation. The two concrete bases had metal posts set into them, both of which had been cut through, presumably when the chamber was demolished in 1966.

- 5.16 The structures and deposits within Trench 4 were sealed by a layer of gravel and the present tarmac surface.

Trench 5 (Figs 2-4 & 9)

- 5.17 Presumed garden soil deposit 504 was the earliest context encountered within Trench 5. This was at least 0.4m thick and extended below the limit of excavation. It contained finds of glass, clay tobacco pipe, ceramic building material and pottery dated to the late 18th to early 19th centuries. This layer was cut by the construction trench for red brick structure 505, which appeared only in the east facing section of the trench and the function of which therefore remains uncertain. The structure was sealed by successive layers of further garden-type soils 502 and 501 respectively, which had a combined thickness of 0.6m and from which no finds were recovered. These deposits were in turn covered by a layer of make-up for the overlying existing concrete floor of the building within which the trench was located.

Trench 6 (Figs 2-4 & 10)

- 5.18 Charcoal-rich layer 629/632 was the earliest deposit identified within Trench 6. It was at least 0.25m thick and was overlain by greyish brown sandy silt layer 628/631, which was of similar thickness. Both of these deposits contained finds dated to the mid to late 18th centuries, with context 631 also containing some residual 13th to 14th-century material. They were cut by the construction cut for east/west aligned culvert 617/619, which was constructed in unfrogged red brick. It had been partially demolished but a slight curve on each of the surviving sides suggest that it was originally of arched construction.
- 5.19 The construction backfill of the culvert, 630, was cut by the foundation trench for concrete and brick wall foundation 626. This formed the south-western corner of a structure, with walls just over 0.8m thick. The sandy silt fill of the brick culvert, 616, which probably accumulated during the use of the feature, was in turn cut for the insertion of ceramic pipe 614. This appears to have been followed by the construction of a further east/west aligned brick and concrete wall, 621, which abutted the partially demolished southern side of culvert 617/619.
- 5.20 Walls 621 and 626 had been partially demolished and the culvert completely filled in, sealing the later ceramic pipe within. The walls and culvert were subsequently overlain by garden-type soils 611/612, which were 0.5m thick and contained finds

dating from the 18th to the 20th centuries. Layer 611 was then cut by the construction trench for modern ceramic pipe 609.

- 5.21 Presumed grave 608 cut through soil layers 611/612 and the construction backfill of drain 609, into wall 621 below. It was approximately 1.6m wide and 0.85m deep, with moderately sloping sides and a flat base. It was aligned north/south and extended into the trench from the south for a distance of 1.5m. The grave cut was lined at the base by a thin layer of powdery white lime, approximately 0.02m thick (see Fig. 10). This was covered by deposit 606, comprising sandy silt up to 0.25m thick and then a further thin layer of lime, 605, with a maximum thickness of 0.05m. These deposits were then sealed by the final fill of the grave, 604, comprising dark orangey brown sandy silt, representing the redeposited garden-type soil 612, through which the grave had been dug.
- 5.22 Grave 608 and garden soil layer 612 were sealed by levelling deposit 603 and then by concrete floor 602, with a synthetic screed, 601, forming the existing floor surface.

Trench 7 (Figs 2-4 & 11)

- 5.23 The excavation of Trench 7, to a depth of 1.1m bpgl, revealed the foundations of the perimeter wall of the prison, close to the south-western corner of the site.
- 5.24 Wall foundations 707 comprised large, roughly dressed limestone blocks, each up to 1.05m long and 0.45m high, bonded with light greyish white lime mortar (see Fig. 11). The blocks were laid in regular, even courses, each of which stepped out so that the lowest exposed course extended northwards into the trench by 0.2m from the inner face of the wall above ground level. The foundations extended beyond the base of the trench.
- 5.25 The wall foundations were butted by deposit 706, comprising greenish brown silty clay containing frequent inclusions of stone, ceramic building material (cbm), glass, clay tobacco pipe and slate, all of post-medieval date. This material is likely to represent the backfill associated with the original construction of this length of the prison wall. Deposit 706 was cut by a modern service trench, which was in turn sealed by a series of make-up/levelling layers for the modern tarmac perimeter road, 700. These included layer 702 which comprised the broken remains of part of a

former pennant sandstone flagged surface, as also identified within nearby Trenches 13 and 14.

Trench 8 (Figs 2-4 & 12)

- 5.26 Trench 8 was excavated against the perimeter wall of the prison, approximately 10m north-west of Trench 7. It exposed the brick and concrete foundations of the wall, as rebuilt in the third quarter of the 20th century. Only modern deposits associated with this rebuild, service trenches and the existing tarmac road surface were encountered within this trench.

Trench 9 (Figs 2-4, 13 & 14)

- 5.27 Within the central part of the trench, the earliest deposit encountered comprised a layer of brown and grey sandy silt, 931. Although it remained unexcavated, finds dating to the 13th to 14th centuries were recovered from its surface. This material appeared to be enclosed on three sides by walls 918 and 944 and robber trench 935, suggesting that it may originally have been contained within, or lay under, a building.
- 5.28 Only a short length of wall 918 was exposed within the trench. It appeared to lie on an approximate north-west/south-east alignment and comprised randomly coursed mortared rubble. It was cut to the west by north-east/south-west aligned linear feature 927, possible a robber trench for a contemporary wall, and to the north by foundation cut 916 associated with William Blackburn's prison. Pottery of 13th to 14th century date was recovered from the fill of feature 927.
- 5.29 Presumed robber trench 935 was aligned north-west/south-east and extended for a distance of approximately 3.8m within the south-western part of the trench. It was at least 1.8m wide and contained a series of fills, including charcoal rich primary deposit 936. Deposit 914, which overlay 936, contained ceramic finds dated to the 14th century or later. This sequence was covered by context 915 which comprised a layer of flat stones, possibly laid to form a surface, which extended to the south beyond the edge of the trench.
- 5.30 Deposit 931 was also cut by angular pit 929, which partially extended into the trench from the eastern edge of the north/south aligned arm of the trench.

- 5.31 Substantial wall 944 extended north-east/south-west through the eastern extent of the trench. It was at least 1.7m wide and constructed from sandstone blocks bonded with lime mortar and it was evident that the facing stonework from the south-eastern elevation had been robbed. The wall would have been abutted to the east by stone surface 943, the latter presumably representing an external yard. Within the northern part of the trench, stone surface 925 was identified between, and cut by, two lengths of foundation associated with the late 18th-century prison. This layer was similar in construction to surface 943 and may be broadly contemporary.
- 5.32 The exposed top of wall 944, which presumably represents the level to which it had been deliberately robbed in the late medieval/early post-medieval period, was cut by pit 951. The pit was partially exposed within the trench and appeared to be an elongated rectangular shape, following the alignment of the wall. It was at least 1.3m long, 0.9m wide with vertical sides and a slightly convex base. It contained a single fill, 950, within which a number of disarticulated human bone fragments were observed, including the upper part of a femur. The pit fill also contained a number of presumed residual finds of 13th-century date (see Fig. 14).
- 5.33 The medieval structural remains and burial pit were all sealed by a uniform layer of clayey silt, 926, which extended throughout the trench and was generally 0.65m thick. This material contained numerous finds including animal bone, ceramic floor and roof tile, stone roof tile, iron nails, plaster and pottery sherds of 14th to 15th century date.
- 5.34 Within the eastern arm of the trench, layer 926 was cut by two adjacent graves, 940 and 942, that were partially exposed along the top of the artificial step created along the inside of the trench for health and safety purposes. Both of these features contained articulated human skeletal remains and, whilst no finds were recovered from grave 942, finds including glass, clay tobacco pipe and pottery of mid 17th to 18th century date were recovered from the backfill of grave 940. In accordance with the approved WSI, the human remains encountered in Trench 9 were all recorded in situ but remained unexcavated.
- 5.35 Layer 926 was also cut by narrow, north-east/south-west aligned ditch 919, which was in turn cut by pit 932, the latter visible only in section. Neither feature contained any dating evidence however the pit, which was approximately 1m wide, was filled with stone demolition rubble.

- 5.36 Also partially exposed along the top of the artificial step within the north/south arm of the trench was the south-western extent of wall 945. This was at least 1m long, 0.7m wide and had been subject to considerable truncation and disturbance.
- 5.37 The aforementioned features which post-dated soil layer 926 were all in turn sealed by a further bulk soil deposit, 903, comprising dark sandy silt, which extended throughout the majority of the trench and was generally 0.45m thick. Finds recovered from this deposit indicate that it dates to at least the mid to late 17th century.
- 5.38 Cutting layer 903 into some of the earlier deposits below were brick walls 904, 905 and 907 which correlate closely with the foundations of the south-western wing and southern principal building of Blackburn's prison as depicted on an architectural plan dated 1785 (see Fig. 4). The exposed foundations survived up to 17 courses (1.55m) deep and continued beyond the base of the trench. They were 0.8m to 0.95m wide and each contained a series of inverted arches. Later structure 906 had been inserted between walls 904 and 905. It was principally constructed in limestone and incorporated ashlar blocks as well as some brick. It comprised a central north/south aligned wall with two short east/west stubs on either side.
- 5.39 One of the arches within wall 907 had been infilled by brick and stone wall 908 and a length of brick wall, 909, which had been built against the western side of wall 907 extended westwards beyond the western end of the trench.
- 5.40 Layer 903 and the walls associated with Blackburn's prison were in turn sealed by a layer of demolition rubble, 902, which measured up to 0.7m thick. This material is likely to have been generated when the earlier prison buildings were demolished prior to more recent development. Finds recovered from this layer comprised a mixture of residual medieval and post-medieval material. Layer 902 was overlain by black soil deposit 934, present throughout the trench. This layer was up to 0.2m thick and is likely to be associated with an open, grassed courtyard area. It was covered by modern make-up deposit 923 and cut by large modern intrusions 946 and 948. These were in turn sealed by levelling layer 901 and associated modern tarmac surface 900.

Trench 10 (Figs 2-4 & 15)

- 5.41 The north-east/south-west aligned (south-eastern) wall of the medieval keep extended throughout the eastern part of the trench, with only a small section of the interior face exposed. It measured at least 4.5m in width and comprised a rubble core, bonded with pinkish sandy mortar and faced with well-dressed limestone blocks (see Fig. 15).
- 5.42 The south-eastern keep wall, 1023, was abutted by interior wall 1026, of similar construction but bonded with yellowish sandy mortar. Interior wall 1026 extended through to the south-western corner of Trench 11 and appeared to divide the floor plan of the keep along its long axis. The full width of the dividing wall was not revealed within Trench 10 however, as the opposing face was present within Trench 11, it can be postulated to be approximately 2.5m wide.
- 5.43 A sondage, measuring 1m x 1m, was excavated within the corner where the two walls met to a depth of approximately 0.85m before water ingress impeded deeper excavation. The earliest deposit identified within the sondage comprised greyish brown silty clay with occasional gravel, 1021. A series of auger holes in the base of the sondage indicated that this deposit extended for a further depth of 1.95m, demonstrating that it is likely to be at least 2.15m thick. Finds recovered from this material dated to the late 13th to 15th centuries.
- 5.44 Deposit 1021 was overlain by a further lighter coloured layer of silty clay, 1020, which was up to 0.35m thick. Finds from this deposit included animal bone and pottery of late 13th to 14th-century date however it did contain a single, presumably, intrusive sherd of mid 16th to 18th-century pottery. A small worked wooden die (Ra 1) was also recovered from this material.
- 5.45 Within the corner formed by walls 1023 and 1026, deposit 1020 was cut by pit 1019, which measured approximately 1.4m in length and 1.4m in width and was up to 0.7m deep. It was filled by reddish brown silty clay deposit 1018, from which finds dated to the 13th to 15th centuries were recovered.
- 5.46 The augering within the sondage in Trench 10 identified a possible offset, measuring up to 0.1m wide, at a depth of 1.63m below the uppermost surviving course of the internal face of keep wall 1023 (c. 8.48m AOD). A similar feature was identified along dividing wall 1026 at a depth of 1.35m from the top of the surviving course of

the south-western face (c. 8.56m AOD). Probing within the sondage established that the walls survived to a height in excess of 2.5m and beyond the limit that could be reached by the probe.

- 5.47 Deposit 1020 and pit fill 1018 were sealed by layer 1014 which was 0.2m thick and comprised mainly limestone blocks, some dressed, and sandy mortar. This material is presumed to relate to the demolition of the keep in the late 18th century, prior to the construction of William Blackburn's prison.
- 5.48 Within the south-western corner of the trench, unexcavated clay deposit 1022 was very similar to pit fill 1018 however here it contained a single sherd of pottery dated to the 18th century, although this is presumed to be intrusive. It was overlain by demolition deposit 1025 which was up to 1m thick and is presumably associated with the same activity as layer 1014 to the east.
- 5.49 Demolition deposits 1014 and 1025 were cut by foundation trench 1017, associated with the construction of Blackburn's prison. The foundations of the late 18th-century prison identified within the western part of the trench comprised part of a substantially-built structure comprising unfrogged red bricks, bonded with yellowish grey lime and sand mortar, in English Cross coursing and incorporating the remains of the base of a single inverted arch along the eastern frontage. The foundations were 0.9m wide and survived to a depth of at least 0.95m, extending below the base of the trench. Along this frontage, the uppermost brick courses were built on lower courses comprising limestone ashlar blocks measuring up to 0.7m in length and 0.4m in depth. The foundations within this location are likely to relate to part of the male gaol of Blackburn's prison, which later became, at least in part, a kitchen and the northern extent of the Governor's House, as depicted on the 1852 Board of Health map (see Fig. 4).
- 5.50 The construction trench for east/west aligned wall 1012 cut through demolition debris 1014 and into keep wall 1023. Wall 1012 survived to 3.75m in length and was 0.4m wide and 0.45m high. It comprised various materials including limestone blocks and rubble as well as brick. Most of the stones were roughly hewn and the wall was constructed in random courses. This structure corresponds well with a wall separating an exercise yard and a garden area as depicted on Causton's map of 1843.

- 5.51 Subsequent development of the prison included the demolition of 'garden' wall 1012 which was levelled over. The construction trench for a later, north-east/south-west aligned wall, 1007, cut through this levelling material, however, where it extended over keep wall 1023 it was constructed directly on top of it, with no construction trench in evidence. Wall 1007 was well constructed in unfrogged red brick and survived to at least 4m long, 0.35m wide and a maximum of 0.3m high. It corresponds closely with one of the two fan-shaped divisions within the exercise yards built around 1848 and depicted on the 1852 Board of Health map. Limestone flags 1010 abutted wall 1007 and presumably formed the contemporary surface of the enclosed exercise yard.
- 5.52 The 18th-century prison walls 1016 and later 'garden' wall 1012, as well as the stratigraphically earlier deposits, were sealed by a rubble 1002, largely comprising brick with gravel, stone and clayey silt, presumably associated with the demolition of Blackburn's prison. This material measured up to 0.75m in thickness.
- 5.53 Later brickwork 1004, built onto and over the earlier structures, is presumed to relate, at least in part, to the laundry depicted on a block plan of the site from 1927. All of the structures and deposits encountered within Trench 10 were sealed by a layer of bedding stone, 1001, up to 0.55m thick, for the overlying tarmac surface of the existing sports court.

Trench 11 (Figs 2-4, 16 & 17)

- 5.54 The earliest features encountered in Trench 11 comprised walls 1108 and 1110. Wall 1110 was aligned approximately north-west/south-east and extended throughout a large part of the trench. It was found to be at least 4.4m wide and was soon identified as the north-eastern wall of the medieval castle keep. Only the internal face of the wall was exposed within the trench, with the external face lying beyond the northern edge of the trench or obscured by later structures. The wall comprised a randomly coursed rubble core of limestone and sandstone blocks within a very sandy yellow mortar, faced with dressed blocks, typically up to 0.3m in dimension. Many of the facing stones were loose and it was evident that they were bonded with a different mortar to that of the core, suggesting that they may represent later repair work.
- 5.55 A sondage, measuring 1m by 1m, was excavated against the internal face of wall 1110 to a depth of 1.1m, whereupon excavation was ceased due to water ingress.

This work exposed several further courses of facing stones and probing down the face of the wall from the base of the sondage established that it survived to an overall depth of at least 2.5m, continuing beyond the reach of the probe. Excavation of the sondage also established that wall 1110 was abutted by a series of deliberately dumped deposits (1160-4), the earliest of which, 1160, contained finds dated to the 11th to 13th centuries, along with a number of residual sherds of Roman material. Material dated to the 14th to 15th centuries was recovered from the latest deposit, 1164. Notable finds from this group included a worked bone bead from deposit 1164, possibly from a rosary, and a number of copper alloy wire pins within context 1162. Deposit 1163 also contained a rabbit femur, possibly indicative of high status dining and over 300 fragments of fish bone, as well as other faunal remains, including domestic fowl, all presumed to be representative of food waste, were retrieved from deposits 1162-4. It was evident from the excavation of the sondage that the facing of the wall was of superior quality where it was abutted by the dumped deposits than above this level (see Fig. 17).

- 5.56 Wall 1108 was identified within the south-western corner of the trench, where only a 3.5m length of the north-eastern face was exposed. It was evident that this structure represented a continuation of the internal dividing wall recorded as wall 1026 in Trench 10. The wall appeared to be of similar construction to that of the lower part of wall 1110 and survived here to a depth of at least 0.45m.
- 5.57 The uppermost deposit within the sondage excavated against the internal face of wall 1110, context 1164, corresponded with layer 1152 that was identified throughout the trench between walls 1110 and 1108. It was also recorded as deposit 1138, 1141, 1146 and 1149. Within the sondage it was recorded as 0.35m thick and more generally it contained abundant animal bone, burnt animal bone, charcoal patches, cess-like material and a significant amount of finds, including pottery dated as late 14th to 15th century and a Norwegian rag whetstone. Other notable finds from this material comprised a jet or shale bead, possibly from a rosary, and a number of copper alloy objects, including a buckle and a number of pins, one of which comprises a residual Roman hairpin fragment. A worked stone mortar or candle holder, adapted from a late Romanesque column capital was also recovered.
- 5.58 These later medieval deposits were overlain by demolition layer 1150, which also abutted keep walls 1108 and 1110. It was approximately 0.5m thick and comprised limestone and sandstone blocks, including ashlar, with sand and gravel and

probably relates to the demolition of the keep in the late 18th century, immediately prior to the construction of Blackburn's prison. A number of fragments of building stone and architectural fragments were recovered from this material, including examples from sills or thresholds, with sockets for securing an iron grill or similar, a piece of likely 11th to 12th century date and a pivot or hinge stone. Notable within this group was a residual fragment of a Roman stone mortar.

- 5.59 Cutting through layer 1150 and into some of the earlier deposits and walls below were brick walls 1104, 1106 and 1107 which correlate closely with the foundations of the north-eastern wing of Blackburn's prison, including parts of two circular stairwells depicted on contemporary architectural plans. The exposed foundations survived up to 0.85m deep and continued beyond the base of the trench. As with the early prison wall foundations seen in other trenches, the straight lengths identified within this trench incorporated a series of inverted arches.
- 5.60 Within this trench, the evidence suggests that soil deposit 1139 accumulated sometime subsequent to the construction of Blackburn's prison and it is therefore likely to represent soils associated with the plots of garden which separated the external airing-court areas. Finds recovered from this material comprised a mix of residual Roman and medieval pottery and a fragment of metallurgical residue.
- 5.61 The construction trench for brick wall 1132 cut into the top of partially demolished keep wall 1110. Wall 1115 survived to a length of approximately 4.4m and was 0.3m wide and a maximum of 0.35m high. In common with wall 1007 identified within Trench 10, wall 1115 corresponds closely with a division associated with one of the two fan-shaped exercise yards built around 1848 and depicted on the 1852 Board of Health map (see Fig. 4). It was truncated at the eastern end by the construction of the block of four brick-built cells exposed along the eastern end of the trench that also cut into the top of keep wall 1110. These cells are presumed to relate to a reception building first depicted on mapping dated to 1927. The infilling of the inverted arches associated with Blackburn's prison by brick and concrete structures 1103, as well as square structure 1105 and a series of modern ceramic drains are also likely to relate to this phase of development.
- 5.62 Following demolition of the late 20th-century reception building and other surviving remains, they were sealed by a series of, presumably associated, demolition and levelling layers including 1102 and 1101, which were up to 0.3m thick.

- 5.63 The whole stratigraphic sequence was finally sealed by the tarmac surface of the former prison basketball court.

Trench 12 (Figs 2-4 & 18)

- 5.64 The earliest deposit identified in Trench 12 comprised compacted stone surface 1217. This was similar to surfaces 925 and 943 identified within Trench 9 to the south that were considered to be medieval in date.
- 5.65 Surface 1217 was sealed by clayey silt layer 1213, up to 0.3m thick and then darker silty clay layer 1212, which measured up to 0.65m thick. Although neither of these deposits contained any finds, they appear to have accumulated within the later medieval/post-medieval period when the majority of the castle had fallen out of use and much of the area surrounding the keep was under orchards or gardens.
- 5.66 Surface 1217 and layers 1213 and 1212 were cut by construction trench 1216 for north/south aligned brick foundation 1215. This structure was exposed within the western edge of the trench and correlates well with the eastern elevation of the western block of the main quadrangular range of Blackburn's prison, adjacent to the central 'keeper's court' (see Fig. 4) . In common with similar foundations within other trenches, it comprised unfrogged red bricks bonded with light grey lime and sand mortar in English Cross coursing. It incorporated the remains of the bases of two inverted arches and survived to a width of at least 0.6m and to a depth of at least 1.45m, extending below the base of the trench.
- 5.67 The construction backfill associated with wall foundation 1215 was in turn cut by construction trench 1210 for brick culvert 1209. This feature was arched and constructed with similar materials to foundation 1215. It was aligned east/west and measured 1.1m in width and at least 1.35m in depth. It appeared to have originally extended through foundation 1215 but had subsequently been blocked by brick wall 1221, constructed inside the culvert, and by brick repair 1218 within wall 1215. Following the final blocking of the culvert, it was backfilled and covered by rubble deposit 1219, which was up to 1m thick and which contained a lead-alloy disc and a sherd of pottery of late 17th to 18th century date.
- 5.68 As had been observed in Trenches 9 and 11, the inverted arches within foundation wall 1215 were blocked in and levelled with a brick and concrete infill, 1205, presumably after the early prison buildings had been demolished.

- 5.69 Soil layer 1212, and the backfill of construction trench 1216, was sealed by rubble levelling deposit 1207, which was up to 0.7m thick. This was cut by trench 1204 for a modern ceramic drain, which was in turn sealed by a layer of stone scalplings, 1202, for modern tarmac surface 1201.

Trench 13 (Figs 2, 4 & 19)

- 5.70 Within Trench 13 a sondage measuring approximately 1m long and 0.6m wide was excavated to a depth of c. 0.6m between the existing workshop building and a later brick structure, 1305. The earliest deposit identified within the sondage comprised mixed sandy silt deposit 1314 which contained cbm of probable 19th-century date. This deposit measured at least 0.1m thick and is presumed to represent a levelling horizon for overlying compacted yard surface 1313. The latter was 0.1m thick and comprised sandy silt and mortar with presumed 19th-century inclusions.
- 5.71 Surface 1313 was in turn overlain by deposit 1312, comprising demolition rubble, 0.2m thick. This was subsequently cut by a vertically-sided trench, 1311, for stepped stone foundations 1309, which were at least 0.6m deep, extending below the base of the trench. The foundations comprised roughly dressed limestone blocks and slabs, up to 0.5m in length and 0.15m in depth, arranged in regular courses and bonded with a sandy mortar. The three uppermost courses comprised visibly smaller stones than the lowest two courses. The construction cut for these foundations was backfilled with mixed deposit 1310, from which a lead alloy buckle and three sherds of pottery of mid to late 18th-century date were recovered.
- 5.72 Brick wall 1308, which forms the central southern wall of the extant former prison workshop, was constructed onto stone foundations 1309. The lowest two courses of brickwork were offset from the top of the stonework and then the face of the present wall was itself further offset from these two courses. The wall was constructed in English Bond style with evidence for the use of various types of mortar, presumably as a result of repairs, alterations or repointing.
- 5.73 Deposit 1312 was partially overlain by sandy mortar layer 1307, 0.1m thick, onto which brick structure 1305 was constructed. Part of the east/west aligned length of this wall was revealed within the trench, together with a north/south aligned return, which investigation demonstrated abutted wall 1308. Also built against this southern workshop wall was brick drain 1306.

- 5.74 Stone foundations 1309, brick walls 1305 and 1308 and drain 1306 were abutted by clayey silt levelling deposit 1304, which was 0.2m thick. Overlying this material, and abutting wall 1308, were sandstone flags 1303. These are likely to represent a pavement depicted on a number of photographs dating to the last quarter of the 19th century. The stone paving was sealed by a thin layer of crushed building rubble, 1301, laid as bedding for present tarmac surface 1300.

Trench 14 (Figs 2, 4 & 20)

- 5.75 Deposit 1419 was exposed at the base of a small sondage within Trench 14, excavated against the southern wall of the eastern wing of the former prison workshop approximately 8m to the east of Trench 13. This material comprised soft, sterile sandy silt and was at least 0.1m thick. It contained no finds.
- 5.76 Deposit 1419 was cut by foundation trench 1407 for the extant former workshop wall 1406. The lower foundation courses of this wall were built in stone and were similar in size and material to the upper courses of foundations 1309 in Trench 13. The stonework was overlaid by a single course of brickwork before an offset for the main wall elevation. It was evident that from the eighth course of brickwork above the single brick foundation course, the wall overhung the lower courses slightly and it was observed that in this location the wall itself contained bricks of different sizes suggesting the re-use of readily available material.
- 5.77 Deposit 1419 was partially overlain by layer 1418 which measured 0.2m thick and is likely to represent the same compacted surface as context 1313 within Trench 13. Deposits 1418 and 1419 were overlain by a series of four further rubble layers, 1417, 1413, 1404/1412 and 1411, which varied between 0.05m and 0.35m in thickness. Layers 1417, 1413 and 1404 also abutted wall 1406. Finds from these deposits comprised clay tobacco pipe, glass and pottery of mid to late 18th to 19th-century date.
- 5.78 Deposit 1404 appeared to be cut by construction cut 1416 for brick structure 1415, which had evidently been inserted into wall 1406, with a stone lintel holding the latter in place. Brick structure 1415 comprised a crudely constructed, presumed square chamber bonded with sandy mortar and is most probably associated with drainage from the former workshop building.

- 5.79 Overlying layer 1411 was a layer of cement mortar, 0.1m thick, overlain by sandstone paving 1408, representing the same surface as context 1303 in Trench 13. The paving, as well as a number of underlying deposits, was cut by large south-west/north-east aligned trench 1403, which measured 1.55m wide and contained a lead pipe. The trench had been backfilled and a layer of concrete laid across the top. Overlying this and paved surface 1408 was modern tarmac surface 1400.

Trench 15 (Figs 2-4 & 21)

- 5.80 The earliest feature encountered in Trench 15 comprised north-east/south-west aligned wall 1541. This was of similar construction to walls 1023 and 1110 revealed in Trenches 10 and 11 respectively and undoubtedly represents the north-western medieval keep wall. Only the external elevation of the wall was exposed within the trench, with the internal face remaining beyond the eastern limit of excavation. It was also evident that the wall had been partially demolished and had also been robbed.
- 5.81 Wall 1541 measured at least 2.5m wide and a sondage excavated against its external (western) face demonstrated that it survived to a depth of at least 0.7m, extending below the limit of excavation. The visible face comprised dressed limestone blocks, up to 0.4m long, 0.3m wide and 0.15m deep, constructed in regular, even courses. Unlike the internal face exposed within Trench 11, there were no obvious signs of repair, such as the use of different mortar, in this elevation. Within the sondage, wall 1541 was abutted by sterile, gritty silty sand deposit 1592, from which no finds were recovered.
- 5.82 Foundation trench 1593 cut into the top of the surviving masonry of wall 1541, on the same north-east/south-west alignment. It contained a further wall, 1570, that was partially exposed within the south-easternmost corner of the trench. This later wall comprised large limestone ashlar blocks rising vertically for approximately 0.5m from the lowest visible extent, where there was then a chamfer of approximately 0.12m at an angle of c. 45°. Above this, the face of the wall sloped upwards at an angle of approximately 75°. The blocks within wall 1570 generally exhibited a uniform pattern of diagonal chisel marks.
- 5.83 Wall 1570 was abutted by two further structures which were also built on top of partially demolished, original keep wall 1541. Wall 1549 comprised roughly hewn limestone blocks, up to 0.35m long, 0.22m wide and 0.15m deep, however it also incorporated a number of finely dressed ashlar blocks that also exhibited chisel marks.

The wall was constructed in regular courses with a roughly dressed south-western face and a rubble core, and was bonded by loose, clayey soils. It measured at least 0.6m wide and survived to a length of 0.8m and to a height of 0.85m. A single sherd of pottery recovered from the bonding material of the wall was dated to the mid 16th to 18th centuries.

- 5.84 Also cutting into the top of keep wall 1541 and abutting walls 1570 and 1549 was structure 1550. This comprised irregular limestone blocks, up to 0.2m long, 0.16m wide and 0.1m deep, whole and part bricks and tile, that were constructed in irregular courses and bonded with lime mortar. At its base it contained a small arch that had been had been constructed over a floor of well-laid bricks which sloped down towards the south-east, under the main structure. This feature would appear to be a flue and the bricks forming the base were covered with a thin layer of charcoal/ash. The structure had been truncated on its north-western side and therefore further investigation was not practicable. No finds were recovered from this structure or the deposits associated with it. However, a brick from the base has been identified as being handmade and dating to the early 18th century.
- 5.85 At the southern end of the trench, accumulated soil deposit 1506 sealed keep wall 1541 and wall 1549. This material was up to 0.5m thick and contained an assortment of medieval and post-medieval pottery, dating it to the mid 16th to 18th centuries. It was overlain by a series of layers (1574, 1573, 1572 and 1571) each up to 0.25m thick, which contained varying amounts of charcoal and rubble. The earliest of these, 1574, contained pottery dated to the mid 16th to 19th centuries.
- 5.86 A relatively complex structural sequence was identified within the central part of the trench. The earliest element appeared to comprise sloped foundations 1597 which were identified beneath later phases of wall construction. The foundations were constructed from limestone slabs, bonded with sandy mortar similar to that in keep wall 1541. Each course of foundation was offset from that below, resulting in a flared north-western facing edge. These foundations extended for at least 1.1m across the trench but were truncated by later intrusions. They were at least 1m wide and survived to a depth of at least 0.5m, extending below the base of the trench. They were abutted by deposit 1596 from which a single sherd of pottery of mid 13th to early 15th century pottery was recovered.

- 5.87 Foundations 1597 were incorporated into later wall 1534, the south-western side of which abutted earlier wall 1590, identified within a sondage excavated on the southern side of wall 1534. Wall 1590 was aligned north-east/south-west and comprised dressed limestone blocks up to 0.3m long, 0.18m wide and 0.12m deep, constructed in regular courses and bonded by grey mortar. Only a 0.65m length of this wall was exposed within the trench, measuring at least 0.25m in width and at least 0.75m in height, extending below the base of the sondage.
- 5.88 Wall 1534 exhibited at least three phases of construction. It incorporated earlier foundations 1597, with a later corner constructed from limestone rubble and sandstone blocks, bonded with light brown sandy lime mortar. Large ashlar blocks along the north-western side suggest a former elevation. The latest phase of construction, predominately comprising limestone blocks with occasional bricks and large reused ashlar blocks that were bonded with a hard cement mortar, formed a right-angled corner. Its south-western face appeared to be similar in construction to wall 1590 and probably pre-dates the latest phase described above. The lowest exposed 0.7m of this face was evidently rendered. A brick from the uppermost corner of wall 1534, associated with the latest constructional phase, dates from the 18th century.
- 5.89 Overlying wall 1590, and keyed into the south-western face of wall 1534, were two courses of brickwork incorporating the remains of sandstone flagged floor 1533. The latter had largely been truncated by later activity. A sample of brick from this phase is handmade and of likely 18th century date.
- 5.90 Wall 1534 was in turn abutted by wall 1585, revealed within a further sondage excavated along the eastern edge of the trench, again along the south-western face of wall 1534. Wall 1585 was aligned north-east/south-west and was of similar construction to wall 1590 and the adjacent south-western face of wall 1534. A 1.8m length of wall 1585 was exposed within the side of the trench and it was found to be at least 0.75m high and extended below the base of the sondage.
- 5.91 On top of wall 1585, and constructed on a slightly different orientation, was presumed buttress 1551. The lower courses of this structure were constructed from limestone blocks bonded with yellow sandy mortar. The uppermost of these stone courses however comprised ashlar blocks. Above this were several brick courses, constructed in an English bond with yellow mortar. The structure was only partially exposed within the eastern side of the trench and had dimensions of at least 1.4m in

length, 0.9m in width and it survived to a height of 0.9m. The stone courses sloped slightly downwards from south-west to north-east at an angle of approximately 6°, however the overlying brickwork sloped at a more acute angle of approximately 20°, with individual bricks having evidently been cut to facilitate this slope. A brick sample recovered from the buttress was dated to the 19th century.

- 5.92 The northern side of large robber cut 1591 was identified towards the southern extent of the trench where it cut down through keep wall 1541 and structure 1550. The exposed edge was steep and irregular, with the feature being at least 1.4m deep, extending below the base of the sondage excavated against keep wall 1541. The robber trench was backfilled with numerous dumped deposits, collectively recorded as fill 1567, from which animal bone, cbm and numerous fragments of clay tobacco pipe were recovered alongside 17th to early 18th-century pottery. Of note within this group of finds was a large residual fragment of Roman *opus signinum*.
- 5.93 At the northern end of the trench, the earliest deposit encountered was a layer of accumulated soil, 1577, which was at least 0.6m thick. This material contained pottery and fragments of brick dated to the 17th to 18th centuries. It was overlaid by undated limestone rubble 1581, that was up to 0.3m thick.
- 5.94 Flagged floor 1533 was cut by large pit 1532 which measured at least 5.7m long, 2m wide and 0.95m deep, extending beyond the sides and base of the trench. Two main backfill deposits were identified within this feature, the earliest of which, 1531, predominately comprised stone and brick rubble, at least 0.5m thick, from which quantities of pottery, clay tobacco pipe, wood and ceramic tile were recovered, along with a folding knife with bone or horn side plates. This material dates to the mid to late 18th centuries. It was covered by dark humic deposit 1513 which measured up to 0.7m thick and contained various finds of pottery, glass, slag and clay tobacco pipe, dated to the late 18th to 19th centuries. Also, of note within these finds was a fragment of external plaster moulding, possibly from a window frame.
- 5.95 Deposits 1596, 1513 and 1567 were cut by a series of pits, identified mainly in the sides of the trench. Although their full dimensions could be ascertained, as they invariably extended beyond the limits of excavation, they varied between 0.55m and 3m across and 0.4m and 0.7m in depth. Each of these pits contained up to three fills, comprising mostly sand, gravel or building rubble. No finds were recovered from

any of these features, which are presumed to relate to the preparation of the site for, or activities directly associated with, the construction of Blackburn's prison.

- 5.96 Cutting through rubble layer 1564, robber trench fill 1567 and the fills of pit 1509, within the southern part of the trench, was foundation trench 1514 for wall 1515. The foundation cut was very regular and steep and measured at least 1.5m deep. East/west aligned wall 1515 was exposed in the base of the trench and measured 1.2m wide. A sondage excavated against the southern face of this wall demonstrated that it was at least 0.4m deep. The lower courses of the wall comprised roughly hewn limestone blocks, whilst the upper courses were formed from ashlar, up to 0.35m long, 0.29m deep and 0.2m wide. The stonework was bonded with grey mortar. This wall corresponds well with the northern wall of the 'First Division Airing Yard', as depicted on the 1852 Board of Health map (see Fig. 4).
- 5.97 At the opposite end of the trench, east/west aligned wall 1538 survived to a depth of at least 1.3m and had been constructed within wide foundation trench 1537/1582, which cut through layers 1577 and 1596, as well as the fill of pit 1535. The two sides of this wall differed noticeably. The northern side was distinctly stepped, so that the lowest exposed course extended approximately 0.18m further to the north than the upper courses and had been constructed relatively close to the foundation cut. On the other side, the southern face lay approximately 1m from the edge of the foundation trench. The lower courses on the southern side comprised roughly dressed limestone and sandstone blocks, above which the uppermost four courses were of limestone ashlar, up to 0.57m long, 0.25m deep and 0.25m wide. The northern face comprised roughly dressed limestone and sandstone blocks, reused ashlar and bricks, crudely finished with bleeding mortar similar to that used in wall 1515. This wall is evidently contemporary with wall 1515 and correlates well with that connecting the two northern wings of the prison, as depicted on the 1852 Board of Health map (see Fig. 4).
- 5.98 The construction cut on the southern side of wall 1538 contained three visible fills, 1584, 1540 and 1539. The only find recovered from these deposits comprised an iron lid or cap from context 1584.
- 5.99 At the northern end of the trench, rubble layer 1581 and underlying soil layer 1577 were cut by the construction trench for brick culvert 1552. Much of the top of this

structure had been removed by later truncation, however it was observed that it was of arched construction, approximately 0.65m wide and at least 0.4m deep. A brick sample from the culvert was similar to that from buttress 1551 and would appear to date it to the 19th century.

- 5.100 A layer of loose rubble, 1578, abutted the northern side of wall 1538 and was in turn cut by large pit 1579 which extended beyond the northern limit of the trench. The later feature was filled by a further, sterile, rubble deposit, 1580. No finds were recovered from either of these deposits.
- 5.101 Robber trench 1517 (ni) had been dug to recover stonework from wall 1515. It had an irregular profile and cut through many of the fills of pits 1509, 1521, 1562 and 1532, as well as through construction backfill deposit 1516. It measured up to 2.7m wide and 0.9m deep and contained a number of backfill deposits, the latest of which, 1519, contained pottery dated to the mid to late 18th centuries, which in this case must be considered residual, as the wall is thought to date to the 1850's.
- 5.102 Robber trench 1591 and many of the earlier pits were sealed by sandy silt layer 1520, which contained abundant rubble and is likely to be associated with the demolition of Blackburn's prison. It measured up to 1.1m thick and was in turn cut by two further pits and the construction cut for modern brick and stone wall 1557, seen only in the eastern edge of the trench. This feature is undoubtedly related to modern redevelopment of this part of the prison.
- 5.103 The southern face of wall 1538 and the backfill deposits associated with its construction were cut by vertically-sided pit 1555. This feature was at least 1.4m long, extending beyond the eastern edge of the trench, 1.1m wide and at least 1.35m deep, extending beyond the base of the trench. The pit contained a single deposit of loose brick and concrete rubble, 1556.
- 5.104 Stratigraphically, layer 1520, the pits that cut it and brick and stone wall 1557 were overlain by levelling layer 1560, which was up to 0.5m thick and comprised mainly loose mixed rubble, including brick, stone and plaster. Layer 1560 was in turn cut by three graves.
- 5.105 East/west aligned grave 1545 was partially exposed within the eastern side of the trench. It was steep-sided towards the top, where it measured 1.1m in width and

became vertically-sided lower down, narrowing to 0.6m in width. It was at least 1.6m deep and extended below the base of the trench. At this level it was filled by lime-rich deposit 1546 which also contained modern rubble inclusions. Although this deposit was not excavated and no human bone was exposed, the feature is interpreted as a grave due to its similarity to other known graves nearby.

- 5.106 North/south aligned grave 1547 was identified in the base of the trench, where it appeared to slightly cut into the lower fill of grave 1545. At this level, it was filled with lime deposit 1548, which also contained modern rubble inclusions. The grave was broadly rectangular in plan and measured approximately 2.4m in length and 1m in width. Very limited investigation of fill 1548 confirmed the presence of articulated human remains.
- 5.107 Grave 1553 was also identified in the eastern side of the trench, where it cut down through the junction of buttress 1551 and wall 1534, to a depth of 1.6m. The grave had a slightly irregular profile and measured a maximum of 1.1m in width. It was aligned east/west and contained planked coffin 1586, within which skeleton 1587 was observed. The coffin was 0.6m wide and approximately 0.25m deep and as well as the human remains it also contained a significant quantity of lime. The grave was backfilled by deposit 1554 which comprised loose rubble and lime from which two sizeable fragments of painted wall plaster were recovered. One of these is of likely 18th century date, whilst the other is thought to date to the 19th century.
- 5.108 The graves were sealed by a layer of concrete, 1501, up to 0.2m thick that is most probably associated with a building pre-dating the present games hall. This was partially overlain by a layer of levelling material, 1502, that was sealed by the concrete floor of the existing games hall building, 1500.

Trench 16 (Figs 2-4, 22 and 23)

- 5.109 The trench was initially excavated to a depth of 2m bpgl, where the earliest deposit encountered comprised red-brown clay deposit 1609 from which a sherd of 18th-century pottery and a clay tobacco pipe stem were recovered alongside a residual fragment of Roman cbm. A hand and also a machine-dug sondage, undertaken following consultation with Mr Armstrong, was subsequently excavated through this deposit to a depth of 3.6m bpgl (water ingress precluded any deeper excavation). The earliest deposit encountered within the sondage was artefactually undated deposit 1629 which was at least 0.5m in thickness. This, and subsequent deposits

1610/1628, 1609, 1608 and 1611, were revealed predominately tipping gently from north to south, although evidence for the same deposits to tip from south to north was identified close to the northern limit of the trench (see Fig. 23; section EE). Nonetheless, these deposits are suggestive of the infilling of a large feature at some point prior to the subsequent construction of Blackburn's prison. Deposit 1629 was sealed by deposit 1610/1628, which comprised stone rubble within a clay matrix that was 0.47m in thickness. Much of the rubble consisted of roughly dressed stonework that most probably represents former building material. A single fragment of late-medieval/early post-medieval brick was also retrieved from deposit 1628, with a fragment of late medieval/early post-medieval Malvern Chase ceramic tile being recovered from deposit 1610. Overlying deposit 1609 proved to be 0.5m maximum thickness but petered out within the sondage (see Fig. 23).

- 5.110 Deposit 1609 was sealed by clayey deposit 1608, up to 1m thick, from which brick fragments and clay tobacco pipe, broadly dated to the post-medieval period, were recovered. This was in turn overlain by two similar looking sandy clay deposits 1603 and 1611.
- 5.111 In the southern extent of the trench, uppermost deposit/ditch fill 1611 was cut by construction, or possibly robber cut, 1621 for east/west aligned culvert 1625. The culvert was constructed in unfrosted red brick bonded with yellow brown sandy mortar and was of arched construction. This culvert bears comparison with those identified in Trenches 12 and 15 and is therefore considered to be contemporary with Blackburn's prison.
- 5.112 Truncating the culvert construction/robber backfill deposits was a shallow construction trench for east/west aligned wall foundation 1613 and also north/south aligned wall 1607. The walls were contemporary and were constructed with unfrosted orange-red brick that were bonded by hard grey cement. Wall 1607 correlated closely with a boundary to the washing and drying ground depicted on the 1852 Board of Health map.
- 5.113 An undated, but presumably modern cut, 1615, also truncated the culvert construction/robber backfill deposits, with further evidence of probable modern truncation (1606) being recorded in the northern part of the trench where it cut deposit 1608 (n.i.). The upper 1.2m of the trench comprised modern levelling/make-

up deposits 1601 and 1600 for the reinforced concrete floor slab within the extant building.

6. THE FINDS

- 6.1 Artefactual material was hand-recovered from 56 deposits (see Table 1). Additional (small) quantities of artefactual material were recorded from bulk soil sample residues taken from three deposits. The finds quantities are summarised in Appendix B and discussed further below according to material.

Pottery

- 6.2 A total of 924 sherds (33,350g) of pottery was hand-recovered during the evaluation, the large majority of which dated to the later medieval period. Fabric codes utilised for recording have been matched to those of the Gloucester City Type series (Tables 1–2). The Gloucester type codes (summarised in Ireland 1983 and Vince 1983) are also given in the text (in parenthesis and pre-fixed TF). Recording was undertaken directly to an Excel spreadsheet. Quantification was according to fabric (within context) and by sherd count/weight in grams. Vessel form, where identifiable, and evidence for use (residues, wear etc) were also noted.

Roman

- 6.3 The small quantities of Roman pottery (20 sherds, weighing 298g) were largely confined to layers and ditch fills in Trench 2 (deposits 207, 208, 210, 211) and Trench 11 (deposits 1154 and 1160). This material is demonstrably residual, coming from medieval and later-dated deposits. The condition of the Roman pottery is poor, the sherds small and some are heavily abraded. The recovered Severn Valley ware and reduced coarsewares types can only be broadly dated to the Roman period; however a mixed date range is indicated by more diagnostic types including: a single south Gaulish (La Graufesenque) sherd from which dates no later than c. AD 110, a Gloucester mortarium sherd (TF 9B) from layer 210, which is probably no later than the mid 2nd century AD; and an Oxford red-slipped ware bowl (with impressed demi-rosettes) from deposit 1160, which dates after c. AD 325/350.

Medieval

- 6.4 The medieval assemblage amounts to 678 sherds (22509g), recorded from 26 deposits. The condition of this material is typically very good; sherd surfaces are

well-preserved and there occur a number of complete/substantially complete or reconstructable vessels (notably from Trenches 10 and 11; layers 1021, 1140, 1143). The mean sherd weight (33.3g) is high for a medieval group and this reflects the good condition overall and low levels of fragmentation.

- 6.5 The overall composition of the medieval group is shown in Table 2. This reveals an assemblage which is heavily weighted towards later medieval types; and with the unglazed coarsewares (TF 40, TF41a/b) expected to be common from before the earlier 14th centuries, being poorly represented. The small quantities in these (earlier medieval) types occur from deposits 928, 934, 950 and 1154 and where forms are identifiable these comprise jars with wheel-finished rims suggestive of 13th or earlier 14th-century dating. Also likely to date to the 13th century, or a little later, are the small quantities of Worcester type glazed ware (TF 90), including from fill 950 of burial pit 951. One abraded sherd in this type, from deposit 1020 (infilling of the keep), probably comes from a tripod pitcher of 12th or earlier 13th century date, although it is clearly residual in this context. The remaining sherds all appear to be from jugs, some featuring diamond-pattern roller stamping of the style typically seen with 13th-century forms.
- 6.6 The majority of the remainder of the medieval pottery, including abundant material from deposits 1021, 1140, 1143 and 1152, can be seen to date to the period after c. 1300/1350. The Late medieval-dated context groups are characterised by a narrow range of fabrics, among which oxidised Malvern Chase products (TF 52b), Minety ware (TF44) and 'unsourced late medieval jug fabric' (TF79) are prominent. More precise dating is difficult for these groups, and production of the most common type, the Malvernian redwares is known to continue into the late 16th or early 17th centuries. Dating for most context groups of before c. 1450/1500 would, however, seem likely based on a number of factors, not least the absence of types expected to appear by this time, including Cistercian wares, coarse 'border wares' and 'Tudor Green', and also by the common presence of Bristol wares and Minety unlikely to date much beyond c. 1450.
- 6.7 The large majority among the Malvern Chase ware comprises oxidised 'redwares' of the type commonly dominating pottery groups from Gloucester and elsewhere in the region from the late 14th to 16th centuries. The represented vessel forms in this type are those to be expected for the later 14th or 15th centuries: mostly jugs and jars/pipkins (some with a thumbled strip at the neck), with a small number of bung-

hole cisterns and a frying pan (deposit 1152). The jug forms mainly comprise smaller, shouldered forms with simple, pulled spouts (some with longer 'parrot-beak' style) and strap handles. Most are undecorated or exhibit simple slipped vertical strips of geometric schemes. After the Malvern Chase wares, Minety ware (TF44) is the next most common of the medieval ware types. All comprise the wheelthrown products characteristic of the later medieval (after c. 1250) range. The identifiable forms, which consist of large globular jars, jugs, a tripod bunghole cistern (deposit 1162) and a skillet/frying pan (1152), are again typical for what might be expected for the period c. 1350–1450/1500. The third most common among medieval fabric types comprise Bristol (Redcliffe) glazed wares (TF92), of the type produced in that city from c. 1250 to c. 1450. The identifiable forms in this type are all jugs; simple and plain pulled-spout vessels characterising late production after c. 1325/50 (Ponsford 1998). Similar forms occur in the quantities of later medieval jug fabric' (TF79), a type noted previously from 15th century deposits from the city (Vince 1983, 130–1).

- 6.8 The large bulk of the medieval pottery comprises serving vessels (jugs) or forms associated with food preparation/cooking or storage. There are few indications of specialist use or high status, which can be seen from some later medieval assemblages associated with castle sites. The only imported (continental) type present is southwest French mottled glazed ware TF81. Only two sherds in this type were recorded, including from a bridge-spouted jug probably dating to the later 13th century, from deposit 926.

Post-medieval/modern

- 6.9 Comparatively small quantities of post-medieval and later pottery were recovered (219 sherds/10017g). The largest quantities (111 sherds) are from Trench 15, with over half from here (71 sherds) being recovered from fill 1531 of pit 1532. Most material would appear to relate to the period after c. 1600/1650. One of the largest groups (23 sherds) was recovered from layer 1567 within Trench 15, with a suggested dating (c. 1680-1750) that is supported by the quantities of clay tobacco pipe. The pottery from this deposit is a mix of glazed earthenwares from regional sources (TF70, TF80), Staffordshire slipware (TF58) and a few sherds in English (TF95) and Rhennish stonewares (TF68c; TF94). Later dating, in the mid or later 18th century, is suggested for other Trench 15 deposits, including robber trench fill 1519 and the large group from pit fill 1531. The latter group is dominated by Creamware (TF 69) and white, salt-glazed stoneware (TF67), types where dating in

the 1750–1780 range is most likely. Identifiable forms in this group, which is characterised by large and unabraded sherds, include mugs, flatwares and (in stoneware TF67) a candlestick. Pottery dating after c. 1780/1800 is uncommon in the assemblage, largely being limited to sherds in refined whitewares with blue transfer-printed decoration. A group of 35 sherds from well backfill 105 is made up of a single, well-fragmented yellow ware vessel of later 19th century type.

Other finds

Ceramic building material and mortar

- 6.10 A total of 37 fragments of brick or tile was recorded. Roman material (22 fragments) was identifiable, all as residual pieces from medieval-dated deposits. This material is well fragmented, however brick, tegula, imbrex and flue tile forms were identifiable (Table 1). In addition a large fragment (724g) of opus signinum, a hard-wearing form of mortar integrating crushed brick fragments and primarily used for flooring, was recorded from post-medieval layer 1567.
- 6.11 Medieval forms include a small number of decorated (inlaid) floor tile fragments and roofing forms, the majority identifiable as of Malvern Chase types that probably date to the 14th/15th centuries. The roofing tiles include unglazed flat forms (deposit 926) and a larger number of glazed ridge tiles, including examples with applied or knife-cut crests. A small, thin (6mm) tile fragment from probable castle ditch fill 1610 features lead glaze spots occurs in red orange fabric probably of Malvern Chase type. It can be dated in the c. 14th to 16th century range, although is abraded and may be re-deposited.
- 6.12 Bricks recorded from Trench 15 are of sizes for the most-part suggestive of later post-medieval/modern dating (Appendix B). Handmade, clamp-fired examples from deposits 1533 and 1550, are probably of 18th century date (pers comm. P Davenport), with that from deposit 1550 probably dating from the early part of that century. The use of lime-based mortar on a fragmentary brick from deposit 1534 also supports 18th-century dating. A larger sized (3" thick) brick from deposit 1551 is probably of 19th-century date and an example from 1552 with traces of a cement mortar may be of similar date.
- 6.13 Complete bricks from culvert 1625 and wall 1613 within Trench 16 are mould-made and frogless 'stock' bricks, all in a similar well-fired red brown fabric. Lime mortar traces are preserved on bricks from wall 1613. The dimensions of the majority of the

recovered complete bricks, coupled with the use of lime mortar, are consistent with an 18th or earlier 19th century date. The one exception was a brick fragment retrieved from possible castle ditch fill 1628 which may be as early as the 17th century

Plaster (information provided by P. Davenport)

- 6.14 Two fragments of painted wall plaster were recorded (491g), both from fill 1554 of modern grave 1553. The fragments are of differing character, probably representative of structures/building phases of different date. One fragment bears traces of red pigment and white paint/limewash. Two plaster layers are visible, the backing layer integrating large lumps of (re-used) plaster or mortar and a dense, cream coloured skim above this, approximately 10mm in thickness. The crudeness of this piece is most suggestive of 18th-century dating. The second fragment is of a lighter, open plaster matrix. Its surface appears to have been brush-smoothed and painted with a pale yellow pigment. An earlier 19th-century date is thought probable for this piece.
- 6.15 In addition to the wall plaster one fragment of external plaster moulding, possibly from a window frame, was recorded from pit fill 1513. The suggested 19th or early 20th-century dating is consistent with the date of pottery and other finds recorded from this deposit.

Worked bone/antler

- 6.16 Three items of worked bone/antler were recorded, two of which were hand-recovered with a single item being retrieved from a bulk soil sample. A red deer antler object (Ra. 1) comes from undated deposit 421 in Trench 4. It consists of a length (72mm) of tine, its sides roughly worked and polished from use, and with both ends squared off and each with a small, central perforation. It probably represents a tool handle, possibly for an awl or similar implement, the tang of which was inserted into the perforated ends. Similar implement handles in antler are known from more than one period, although use appears most common in the later Roman and early medieval periods. Bone die (Ra. 2) recovered from keep infill 1020 consists of a small cube (8.5–9mm) of dense cortical bone, its faces polished and marked with values as 'circle and dot'. The die is marked in the 'standard' manner – where values on opposing faces total seven. The arrangement of values (face positions and orientation) corresponds to Potter's (1992) variant 13 (from 16 possible variations). Variant 13 would seem, on the basis of only limited evidence from Winchester (Egan

1997) and London (Egan 1998, 290), to be one of the two most common arrangements for medieval bone dice.

- 6.17 The item recovered from soil sample 4 (deposit 1164) consists of a small oval bead (7mm x 6mm). It may represent a rosary bead with a later medieval date being most probable.

Worked stone

- 6.18 Five items of worked stone (excluding building stone) were recorded. A residual fragment from a stone mortar of Roman type was recorded from deposit 1150. The fragment comprises part of the lower portion of a mortar approximately 320mm in diameter, with a rough horizontal groove above the vase and part of the projecting pouring spout. The stone type utilised appears to be a pebbly Old Red series sandstone, with a likely source in the Forest of Dean or possibly the Bristol area. The dimensions and general form of this object is similar to a complete example from Staverton, Wilts (Roe 2013, 36, fig. 11).
- 6.19 A complete bead, probably of jet and of approximately spherical form (12mm diam.), was recorded from later medieval-dated deposit 1152. Roman jet (and shale) beads of similar size and form are known (Allason-Jones 1996, 29), although a more likely interpretation is as a rosary bead, contemporary with the dating of the medieval pottery from this context. Jet rosary beads of medieval date are known, for example, from a 14th or 15th century dated deposit from Bristol (Good 1998, 172, no. 328).
- 6.20 A micaceous schist whetstone (Norwegian ragstone) was also recovered from later medieval-dated deposit 1152. It measures 150mm in length (25–20mm in width) and exhibits a high polish from use to one of its longer faces. Norwegian rag was imported for use as sharpening stones from at least the 12th century.
- 6.21 An object recovered from otherwise undated deposit 1138 appears to have been adapted from a small, late Romanesque cushion-moulded column capital of late 11th/early 13th century date. Its upper surface is deeply dished, from probable use as a mortar or possibly as a candle holder (pers comm Davenport). The stone type utilised is an oolitic limestone, probably of local origin.
- 6.22 A complete slate stylus was recorded from the surface of keep wall 1110. Such items were in common use as writing instruments until relatively recent times and

19th or earlier 20th-century dating would seem likely suggesting that it is likely to be intrusive.

Building stone/architectural fragments (identifications by P. Davenport)

- 6.23 Five fragments were recorded, all from the otherwise undated 'rubble deposit' 1150. A sixth item of stone from this layer is the Roman mortar described above (see section 6.17), and possibly representing an object re-used for building stone. The five building stone fragments are of limestone or lias, presumed to be from Cotswolds sources. Three retained traces of pinkish or white lime mortar suggesting incorporation or re-use in walls. With one possible exception (see 6.23 below), the building stone cannot be reliably dated by form or technology, although broad medieval date would seem most likely.
- 6.24 Two fragments (in lias and oolitic limestone) consist of roughly-dressed blocks. The facing dimensions of one (160mm x 120mm) would be consistent with an earlier medieval date (11th or 12th centuries). This piece features two layers of pink and white mortar, possibly resulting from successive pointing/re-pointing.
- 6.25 Two of the remaining three pieces (all of oolitic limestone) comprise roughly dressed blocks into which are cut square-sectioned sockets. In one instance the perforation extends through the full depth of the block (160mm), and in the second example to a depth of 55mm. Both pieces probably represent sill or threshold stones, with the sockets for securing an iron grill or similar.
- 6.26 The final item is an irregular fragment with one dressed face and a circular perforation, approximately 50mm in diameter, bored from opposite faces. The most likely use is as a pivot/hinge stone. Red staining visible to the inside face of the perforation may have resulted from an iron insert (socket) or perhaps from the flow of water.

Metal finds

- 6.27 A small number of metal objects, mainly iron nails and other fragmentary items, were recorded, the majority from medieval and post-medieval dated deposits (Table 1). Objects of copper alloy include a single Roman item, a hairpin fragment with a gadrooned, spherical head, which was residual from medieval-dated deposit 1140. The other (identifiable) items consist of a buckle frame fragment also from deposit 1140, a nail (deposit 114) and a number of wire pins. The pins from keep infill 1162

are examples of longer wire pin forms (35-42mm) with wound heads which are typical of later medieval finds. A corroded mass of c. 500 shorter wire pins, as well as other wire fragments, was recorded from deposit 202, for which 19th-century dating is indicated from glass and other finds retrieved in association. The single noteworthy iron object is a folding knife from (18th-century dated) fill 1531 of pit 1532. This item is heavily corroded but appears to comprise a blade approximately 120mm in length with riveted side plates of bone or possibly horn.

- 6.28 Two items of lead-alloy (probably pewter) were recorded, both from post-medieval dated deposits. That from 1310 is a rectangular-framed shoe or hat buckle. The second object (from deposit 219) consists of a plain thin sheet disc, 80mm in diam. of unknown function.

Metallurgical residues

- 6.29 Small quantities (825g) of ironworking slag and hearth/furnace lining were recorded from medieval-dated deposits (Table 1).

Glass

- 6.30 Quantities of vessel glass (15 fragments weighing 1780g) were recorded from 10 deposits. The majority comprises green-coloured bottle glass typical of material produced in the later 17th to 19th centuries. The base a wide-bodied bottle with prominent 'kick' from deposit 1567 probably dates before the mid 18th century. Also from this deposit is a flat rim from a small 'pharmaceutical' bottle of the type common across the late 17th and 18th centuries. A bottle base of narrower, cylindrical form from deposit 1531 dates to the later 18th century. The form of the moulded rim noted on a bottle from deposit 504 suggests dating, in this instance, to the late 18th or early 19th centuries.

Clay tobacco pipe

- 6.31 A total of 59 fragments, mainly stems (44), was recorded from 19 deposits. None featured makers marks or moulded decoration. Bowl forms (four) recorded from garden soils 903 are close to Oswald's Types 17/18 and a mid or later 17th century is suggested (Oswald 1975). Nine bowls from layer 1567 correspond to Oswald's Types 18 and 19 and suggest dating in the late 17th or early 18th century. Three fragmentary bowls from deposit 112 probably date to the mid/late 18th century. This latter group includes 'muffle' waste which hints at clay pipe manufacture in the vicinity. The assemblage recovered from probable castle ditch fills 16008 and

16009, as well as from culvert backfill 16019, within Trench 16 were all unmarked and only broadly dateable in the late 16th to 19th century range.

7. THE BIOLOGICAL EVIDENCE

Animal Bone

7.1 A collection of animal bones (932 fragments weighing 5628g) was recovered through a combination of hand excavation and bulk soil sampling from 27 deposits. For the purpose of this report, the bones were identified to species and skeletal element using an osteological reference collection (Cotswold Archaeology Ltd) as well as standard reference literature (Schmid 1972, Hillson 1996), and quantified by fragment count and weight. Where modern breakage was observed and re-fitting was possible, those fragments were recorded as a single bone. Any fragment recovered in association with modern material, or from a context that cannot be confidently phased, is not discussed beyond the details set out in Appendix C. The material displayed a varying degree of preservation and was highly fragmented with frequent historical and modern damage. This has rendered 53% of the assemblage unidentifiable beyond the level of cattle or sheep size mammal. However, it has been possible to identify the remains of cattle (*Bos taurus*), sheep/goat (*Ovis aries/Capra hircus*), pig (*Sus scrofa* sp.), dog (*Canis familiaris*), domestic fowl (*Gallus gallus*), goose (*Anser anser*), rabbit (*Oryctolagus cuniculus*) and duck (*Anas* sp.).

Medieval

7.2 The medieval activity on site produced 791 fragments (3323g) recovered from 12 deposits. The remains of cattle dominate, with fragments of sheep/goat bone also being recovered. Some of the cattle and sheep size bone did display cut marks indicative of butchery. The presence of both meat poor and meat rich fragments is suggestive of the waste from primary and secondary butchery and is suggestive of the stepped stages of butchery, from the slaughter of the animal through to the preparation of an carcass into individual cuts of meat.

7.3 The remains of pig were the least abundant of the three major domestics represented by only five fragments (52g). A single rabbit femur was also recovered from keep infill 1163. As these later two species were recovered in such small

numbers, it is difficult to make an inference as to their contribution to the site economy.

- 7.4 Domestic fowl was identified in layers 1140, 1143, 1163 and 1164; goose from 1140 and 1143 and a small duck species, possibly teal, again from 1164, each from a single fragment of long bone. These species were commonly exploited for food and secondary products in the medieval period (Baker and Worley, 2014). A total of 316 fragments (21g) of fish bone were recovered from keep infill deposits 1162, 1163 and 1164. Given the proximity of the site to the river Severn, it is not unreasonable to suggest that fish contributed to the protein intake on site. It was not possible to identify individual species, but the remains of cartilaginous fish were present suggesting the exploitation of both fresh and marine species.

Post-medieval

- 7.5 The post-medieval assemblage consists of a total of 128 fragments (3247g) of bone, recovered from 13 deposits and displaying very similar characteristics to those detailed for the medieval period. The bones of cattle and sheep/goat dominate and are represented mainly by meat-poor skeletal elements with only the occasional occurrence of meat-rich elements. Despite their absence on any of the identified cattle and sheep/goat bones, cut marks indicative of butchery were observed on some of the cattle and sheep size ribs and vertebrae. As with the preceding period, the post-medieval assemblage is indicative of the waste from slaughter to the dressing of individual cuts of meat. Of note is a distal cattle phalange (a bone of the hoof) recovered from deposit 1531, that displays a fringe of abnormal bone growth on its outer edge, possibly as the result of being used as a draught animal (Bartosiewicz, 2013, 147-8).
- 7.6 Pig and goose were present in layer 1020, as was dog in fill 112 of ditch 113. Any of these species would be a common and expected find in assemblages of this period (Baker and Worley, 2014).

Human Remains

- 7.7 Two fragments (255g) of human bone were recovered from post-medieval layer 109. The fragments were well preserved and identified as the shafts of a femur and a tibia. No osteological landmarks relating to age at death estimation or sex determination were present as historical damage had removed both the proximal and distal epiphyses from each bone. However the comparative size and

development of each fragment is suggestive of full maturity, but as the fragments were not articulated upon recovery, it is not possible to say whether they originate from a single individual.

Plant Macrofossils

- 7.8 Four samples were taken with the intention of recovering evidence of industrial or domestic activity and material for radiocarbon dating. The sample was processed by standard flotation procedures (CA Technical Manual No. 2).

Medieval

- 7.9 Four samples were taken from the bulk deposits infilling the interior of the keep within Trench 11. Samples 1 and 2 (from deposits 1160 and 1162 respectively) contained no plant remains and a moderate amount of charcoal identified as oak (*Quercus*). This material is indicative of discarded hearth/furnace debris.
- 7.10 Deposit 1163 (sample 3) contained a moderate amount of charred material including a hazelnut shell (*Corylus avellana*), free-threshing wheat (*Triticum aestivum/turgidum/durum*), barley (*Hordeum vulgare*) and oat (*Avena*) cereal grains, a free-threshing (?club) wheat rachis (?*Triticum durum*) and vetches/peas (*Vicia/Lathyrus*), field gromwell (*Lithospermum arvensis*), thistle (*Cirsium/Carduus*) and medick/clover (*Medicago/Trifolium*) seeds. Charcoal was identified as oak and alder/hazel (*Alnus glutinosa/Corylus avellana*). Deposit 1164 (sample 4) contained a small number of oak, barley, rye (*Secale cereale*) and free-threshing wheat grains and charcoal identified as oak, willow/poplar (*Salix/Populus*), beech (*Fagus sylvatica*) and hawthorn/rowan/crab apple (*Crataegus monogyna/Sorbus/Malus sylvestris*).
- 7.11 Taken together this material is indicative of dumps of domestic waste/hearth debris. The presence of only a single fragment of cereal chaff and a moderate assemblage of charred cereal grains, suggests this waste most likely originates from food preparation rather than cereal processing.
- 7.12 Any of the identifiable carbonised cereal grain and charcoal (excluding oak) would be suitable for radiocarbon dating if required.

8. DISCUSSION

8.1 The archaeological evaluation has identified activity throughout the site dating from the Roman period through to the modern era. It has also intimated the nature of this activity and the extent to which the associated features and deposits survive, as well as indicating the likelihood of further remains being present within the site. The results of the evaluation are discussed in chronological order below.

Roman

8.2 Although no features or deposits of Roman date were identified during the current fieldwork, a small assemblage of residual artefactual material, mostly recovered from Trenches 1, 2, 10 and 11, presumably relates to activity on or near the site during this period. It is known that the site lies immediately outwith the western extent of the Roman town and it has previously been postulated that two phases of Roman waterfront, including quays, may have extended through the western part of the current site, placing it for the most part in the area between the river frontage and the town defences. Previous archaeological investigations in the western part of the site recorded the remains of a retaining wall at approximately 6m AOD, possibly relating to the 2nd/3rd-century Roman quay (Garrod 1986). Further Roman horizons have been recorded in this area at a very similar level (approximately 6.6m AOD). In contrast, the present fieldwork rarely penetrated lower than 9m AOD, making it highly unlikely that the Roman horizons would be encountered.

Medieval

8.3 Discoveries relating to the medieval development of the site were made during the current fieldwork, a number of which would appear to correlate well with the available cartographic and historical evidence. Medieval deposits or structures were identified within Trenches 1, 2, 9, 10, 11, 12, 15 and 16.

The early keep (see Fig. 3)

8.4 Amongst the earliest of the medieval features encountered, and undoubtedly the most notable, were lengths of three of the four main walls of the 12th-century castle keep. Measuring over 4.5m in width, the keep walls extended through Trenches 10, 11 and 15 and were exposed at depths of 0.45m bpgl. Within Trench 11, a 10.7m length of the internal face of the north-eastern wall was exposed, whilst a short section of the south-eastern wall was identified within Trench 10. The external face of the north-western wall was recorded in Trench 15.

- 8.5 Although it was obvious that, in part, the walls had been subject to later repairs, the earliest elements of each were of similar construction and presumably represent the initial construction of the keep in the second decade of the 12th century. This would have been the first part of the 'new' castle built on the site. However, historically, as discussed by Hurst in the 1980s, the exact size and shape of the keep have been subject to much conjecture, with its appearance depicted only on a small number of known paintings and engravings, mostly of post-medieval date, and a number of discrepancies in the documentary evidence for its size. If, as is suspected, narrow internal wall 1026/1108 represents a central dividing wall extending along the length of the interior of the keep, the results of the current fieldwork can be used to confidently calculate that the original keep would have had an external length of c. 30m (98' 5") and a width of c. 25m (82'). This compares with just over 21m (70') square for the broadly contemporary keep at Rochester, 27.45m (90') x 22.85m (75') for that at Canterbury and 35.95m (118') x 21.35m (70') for the White Tower at London (Hurst 1984). The floor plans of the 12th-century keeps at Middleham (N Yorks) and Rochester both contain a similar wall extending along the centre of the length of the building.
- 8.6 Evidence for a contemporary structure extending from the main north-western wall was identified in Trench 15, where the earliest core of wall 1534 and foundations 1597 appear to be of similar construction to that of the early keep walls. It is possible that this may be associated with a forebuilding, such as that at Rochester, which incorporated a gallery and a chapel. Hurst does mention the possibility of such a structure, however he suggested that it may have been constructed on the north-eastern side of the keep, facing the main gate (*ibid.*, 105).
- 8.7 The trial trenching failed to identify any contemporary ground levels associated with the early keep. The section of the external elevation exposed within the sondage in Trench 15 was of sufficiently good quality to assume that it was part of the superstructure rather than the foundations. It is also noteworthy that no evidence for any floor levels was found in the interior of the keep (within Trenches 10 or 11) despite the excavation of sondages and the sinking of a number of boreholes below the level of these, to a depth of approximately 8.15m AOD.

Later rebuilding of the north-western keep wall (see Fig. 3)

- 8.8 The insertion of wall 1570 into early keep wall 1541 indicates that the former had been demolished to its present level prior to the construction of the new wall. This

sequence accords well with the historical documentary evidence that attests to various problems with the structural integrity of the keep and the subsequent details of the work carried out to repair it. A survey of 1336 recorded that the west wall of the keep was ruined to its foundation and Hurst further indicates that substantial sums were spent on repairs to the castle, presumably including the rebuilding of the north-western ('west') wall (ibid., 106). That the rebuilt wall was set back from the face of its earlier counterpart may have been an intentional attempt to derive additional stability from the earlier foundations. It is assumed that the original wall would not have been visible above the contemporary ground surface and therefore that the external ground level for the later rebuild may have been just above the level of the partially demolished wall. The sloping face of the later wall would appear to be similar to the lower courses of other contemporary keeps, such as Hedingham (Essex), Castle Rising (Norfolk), Newcastle (Tyne and Wear), Dover and Rochester (both Kent).

- 8.9 Broadly contemporary with the rebuilding of the keep in the mid 14th century, and presumably undertaken as a further measure to try and stabilise the building, the contemporary ground storey was, at least partially, backfilled with tons of dumped material containing abundant artefactual and faunal material, likely to represent domestic waste, in all likelihood derived from the castle kitchens. It was evident that this action had resulted in the better state of preservation of the internal face of the keep where it was abutted by these deposits. The fragment from the medieval stone mortar recovered from later deposits within Trench 11 is also likely to have been used in the kitchens.

Other remains associated with the castle (see Fig. 3)

- 8.10 Substantial wall 944, within Trench 9, was at least 1.7m wide and its location and orientation correlate well with the alignment of the south eastern inner bailey wall of the castle as suggested by Hurst (ibid., 99). Evidence from the current work suggests that this wall was demolished to its current level during the 14th or 15th centuries, however, its alignment endures on later maps and depictions, such as a painting by Thomas Robins from 1748, Hall and Pinnell's map of 1780 and a Gloucester and Berkeley Canal Company plan of 1819 (also see 8.16 below). It is possible that this alignment did not survive as a continuous wall though, as it appears to be depicted in a ruinous and incomplete condition on an engraving by Thomas Bonnor dated to 1819.

- 8.11 The presence of wall 918 and robber trench 935, together with possible floor layers 915, could indicate a structure built against the north-western side of the inner bailey wall. Artefactual material recovered from deposits enclosed by these structural remains would suggest a date in the 13th or 14th centuries for the postulated building's construction. Garrod also identified structural remains of 13th-century or later date immediately north-west of Trench 9 and to the west of Trench 12 during his observations of the piling works for the construction of the current reception building in 1985. These were interpreted as being associated with the King's and Queen's residential areas (Garrod 1986, 237).
- 8.12 It was evident that the south-eastern side of inner bailey wall 944 would have originally been abutted by probable external yard surface 943, which was of similar construction to surface 925 within the northern part of the same trench and also to surface 1217 within Trench 12 to the north. Similar surfacing was also recorded by Garrod during construction of the current reception building (*ibid.*, 237).
- 8.13 Although, as intimated above, the scope of the current works made it difficult to define exactly where the internal or external ground levels associated with the keep may have been, the evidence from Trenches 9 and 12 does give a good indication of where ground level, at least in the later medieval period, within the inner bailey lay. The top of surface 925 lay at 9.27m AOD whilst levels on the top of surface 1217 varied between 8.89m and 9.04m AOD.
- 8.14 Despite the fact that the upper fills of the large ditch identified along the western extent of the site, within Trenches 1 and 2, clearly date to the post-medieval period, this feature corresponds very closely to the presumed alignment of the castle's inner ditch. Hurst suggests that the ditch was ordered by Henry III in response to attacks by the Welsh during the Baron's War of 1265-6 (Hurst 1984, 92).
- 8.15 A similar sequence was identified throughout Trench 16, where a series of tipped, predominately 17th and 18th-century, deposits was revealed overlying late medieval/early post-medieval clays and silts. The extent and depth of these deposits encountered throughout Trench 16 is considerable, and certainly pre-date the construction of Blackburn's late 18th-century prison, as evidenced by their truncation by brick culvert 1625. The possibility that these deposits represent the upper-most fills within the castle's inner ditch, immediately outwith the inner bailey wall depicted on Hurst's projection (see Fig. 3 of this report), cannot be ignored. If

such an interpretation is accepted then it does suggest that the castle may have been smaller in plan than has previously been envisaged, although the potential for a southern outer bailey or barbican associated with the documented Llanthony Gate that lay beyond this postulated inner ditch remains plausible.

- 8.16 Human remains discovered in Trench 9 appear to relate to the use of the castle as the County Gaol in the later medieval period. Pit 951, containing disarticulated human bone, was cut into the top of partially demolished inner bailey wall 944 and was sealed by soil layer 926 which contained numerous finds dated to the 14th to 15th centuries.

Later medieval/early post-medieval

- 8.17 Part of the castle was being used as a gaol by 1185 (Dieffenthaler and Gujba 2015, 6) and there has been such a facility on the site ever since. The castle fell into decline in the later 15th century and, as Hurst describes ‘In the reign of Richard III it was turned over to its subsidiary role as a prison. Some buildings were demolished in c. 1489 – perhaps the former royal domestic quarters – but the keep, main gatehouse and part at least of the circuit walls were left standing to serve as the county prison. Further demolition is indicated in a grant of 1529, by the King to the Corporation, of stone from the castle walls for rebuilding the Boothall ‘as long as enough stone is left inn the castle for repairing the gaol’ (Hurst 1984, 111).

Use of the site as the County Gaol

- 8.18 Evidence for the use of the site as the County Gaol in the post-medieval period was identified throughout the site, within 10 of the 15 evaluation trenches (Trenches 1, 2, 3, 4, 6, 9, 10, 11, 12 and 15). However, the discovery of structural remains relating to this period was restricted to those identified within Trench 15 and are associated with the keep structure itself. At least two phases of rebuilding of later medieval wall 1534 appear to relate to this period and may represent the modification of an earlier forebuilding. This may be associated with the single storey building with an apparent balcony depicted on Bonnor’s 1819 engraving. The likelihood is that this incorporated a flight of steps leading to entrances on the first floor of the keep, visible on Bonnor’s engraving, and perhaps comprising the remains of forebuildings similar to those at Hedingham, Newcastle and Castle Rising. Associated walls 1590 and 1585, as well as floor 1533, appear from their construction to relate to the early post-medieval modification and use of this structure.

- 8.19 Although only partially excavated, wall 1549 and structure 1550 also appear to date to this period. Little can be deduced about the function of the earlier of these (wall 1549) other than it would appear to be of rather crude construction, bonded with soil, and perhaps indicative of an external garden or boundary wall. Within the corner formed by the construction of wall 1549 against keep wall 1570, structure 1550 was more solidly built and bonded with lime mortar. Although the structure had been truncated to the north, the inclusion of a probable flue, constructed with a brick base, indicates that it had a practical function. However the paucity of evidence here precludes definitive interpretation.
- 8.20 By the end of the 17th century, the gaol appears to have been in a good state of repair, with precincts which included a flower garden kept by the gaoler's wife and a bowling green, used by the residents of the city, as well as by the gaoler and the prisoners. A visitor to the gaol in 1683, Thomas Baskerville, described it as '...esteemed... the best in England, so that if I were forced to go to prison and make my choice I would come hither.' (Dieffenthaler and Gujba 2015, 7). Depictions of the site from the 17th and 18th centuries show the surviving keep surrounded by formal gardens and orchards. This would appear to relate well to the presence of the consistent, dark soil horizon identified across large parts of the site (within Trenches 2, 3, 4, 6, 9, 10, 12 and 15) that contained finds of 17th to 18th-century date. Garrod also encountered this material, up to 1m thick, sealing the levels associated with the medieval castle (Garrod 1984, 237-8).
- 8.21 Within Trench 9 intercutting graves 940 and 942 cut through soil layer 926, which was dated to the 14th to 15th centuries. Finds from the backfill of the latest of these graves dated to the mid 17th to 18th centuries and it is therefore entirely likely that these represent the graves of inmates of the gaol. A similar interpretation was made by Garrod for three burials he identified during the 1985 building works (*ibid.*, 238).
- 8.22 The evidence from Trenches 1 and 2, and from Trench 16 if it is accepted that the identified deposits are associated with the castle ditch, indicates that the medieval inner castle ditch was backfilled by the later 17th to 18th centuries. It is noteworthy that neither the castle's inner or outer ditch are depicted on Hall and Pinnell's map of 1780 nor on Robins' 1748 painting, suggesting that they had been infilled by at least the mid 18th century. Within Trenches 1 and 2 the presence of a number of features and deposits post-dating the ultimate infilling of the ditch indicates that specific

activities were being undertaken in this part of the site, including those which involved lime and a process generating quantities of wood ash.

- 8.23 The presence of large robber trench 1591 in Trench 15 indicates that stone was being sought from earlier structures, including the 12th-century north-west wall of the keep, presumably for re-use elsewhere around the gaol site, in the early 18th century. Dressed stone blocks present within one of the probable castle ditch fills in Trench 16 may also be derived from the robbing of the castle's structures.
- 8.24 The base of pit 1532, located between walls 1534, 1590 and 1585 extended below the base of two sondages excavated through its fills. The earliest identified deposit within this feature contained numerous finds dated to the mid to late 18th century. The location of this feature appears to correlate with that of a block of 'privies' depicted on a plan of 1779 made for the installation of a drain and may therefore represent a cess pit beneath. Walls 1534, 1590 and 1585 may in fact represent the remains of a tank and it was apparent that the south-western face of wall 1534 was rendered, as you might expect in such a structure. This pit was eventually backfilled entirely by the late 18th to 19th centuries, most probably prior to the construction of Blackburn's prison in the late 18th century.

Post-medieval

- 8.25 Following pressure from prison reformers in the later 18th century, proposals were put in place for the replacement of the medieval keep with a purpose built modern prison. The Act of Parliament authorising the new prison was passed in 1785, the proposals being designed by the prison architect William Blackburn, and called for a H-shaped building with separate wings divided by gender and severity of crime.

Construction of Blackburn's prison (see Fig. 4)

- 8.26 Further deposits which appear to represent preparation of the site for the construction of Blackburn's prison were identified within Trenches 10 and 11. Here, layers of demolition rubble (1014 and 1150) would appear to be related directly to the demolition of the keep and the levelling of the area subsequent to construction.
- 8.27 The substantial, well-preserved, predominately brick-built foundations of Blackburn's prison, unmistakable with their inverted arches, extended throughout Trenches 9, 10, 11 and 12, where the exposed lengths corresponded almost exactly with an architectural plan of the building dated to 1780, including the circular stairwells.

These foundations all extended below the bases of the current trenches and were identified as close as 0.35m below present ground level. It was evident within Trenches 10 and 11 that the construction of Blackburn's prison had impacted directly on the remains of the medieval keep walls.

- 8.28 Brick-built culverts revealed in Trenches 12, 15 and 16, which presumably drain westwards towards the Severn, lie on the same alignment as the foundations of Blackburn's prison and are therefore likely to be contemporary with the original construction.
- 8.29 Interpretation of the presumed buttress feature 1551 in Trench 15 is problematic. It appears to have been constructed to support wall 1534, which was presumably demolished prior to construction of Blackburn's prison, however the brickwork is evidently of 19th-century date.

Modern

- 8.30 Phases of activity associated with the development of the prison throughout the 19th and 20th centuries were identified across the site and many of the identified features and structures correlate closely with the various cartographic and documentary records of the site.

19th-century development of the prison

- 8.31 Investigation of the structural sequence within Trenches 13 and 14 would appear to confirm that the central and eastern south-facing walls of the existing workshop building in the south-western part of the site do appear to have been rebuilt on the original foundations of the 1823 treadmill structure. The more substantial foundations encountered within Trench 13 may have been necessary to support the central multi-storey building housing the machinery used for grinding corn, bruising barley and pumping water for the use of the prison. The slighter foundations to the east, within Trench 14, are therefore presumed to be those of the eastern, single-storey arcade within which 18 prisoners would have worked the wheel, each within individual compartments, to deter any communication between them.
- 8.32 Well 107 within Trench 1 appears to date to the 19th century and may therefore have serviced the adjacent debtors' prison that was constructed in 1826. Nearby, in Trench 2, pit 203 contained c. 500 copper alloy pins and may be associated with

activities being undertaken in the workshop on the ground floor of the debtors' prison.

- 8.33 Further brick-built culverts identified within Trenches 4 and 6 may have drained westwards from the debtors' prison and the new gatehouse, also constructed in 1826, respectively. A further culvert, 1552 in Trench 15, ran beyond the wall connecting the northern walls of the north-western and north-eastern wings of Blackburn's prison and this may have drained away from the block attached to the western side of the new gatehouse, which is depicted on the 1852 Board of Health map as containing 'Male Reception Cells'. The location of culvert 1625 revealed in Trench 16 may indicate drainage for the south-western wing of Blackburn's prison, that is depicted on the 1852 map as containing the 'Female Reception Cells'.
- 8.34 Within Trenches 10, wall 1012 corresponds well with an external wall extending between the eastern side of Blackburn's prison and the western wall of the northern wing of the block that was constructed sometime after 1844. Wall 1007 and its associated paving 1010, and wall 1115 correlate closely with the two semi-circular fan-shaped exercise yards installed during rebuilding that was completed in 1850.
- 8.35 By the mid-nineteenth century further development of the open area between the two northern most wings of the original prison saw the construction of east/west aligned yard walls, 1515 and 1538, identified in Trench 15. It is presumed that north/south aligned wall 1607 revealed in Trench 16 fulfilled a similar function adjacent to the south-western wing of the prison. These walls correspond well to those depicted on the 1852 Board of Health map, although wall 16007 actually features on the slightly earlier, 1843, Causton map. East/west aligned wall 1613, which is of contemporary construction with wall 1607, does not feature on any of the historical mapping, presumably because it was a smaller or less significant partitioning of the yard area. Of similar construction to walls 1515 and 1538 and therefore presumed broadly contemporary, was structure 906, built between two foundations of Blackburn's prison. However, contemporary cartographic sources do not indicate what this may relate to.
- 8.36 The large stepped foundations revealed within Trench 7 are likely to be associated with the rebuild of the perimeter wall on a different alignment to that of the original perimeter wall of Blackburn's prison. This is likely to have been undertaken at the

same time as the construction of the Governor's House in 1863 (Dieffenthaler and Gujba 2015, 35).

- 8.37 Photographic evidence indicates that the sandstone pavement exposed within Trenches 13 and 14 (and as redeposited rubble in 702) was laid by at least 1874 and presumably abutted the treadmill building in this part of the site.
- 8.38 The walls and drains encountered within Trenches 5 and 6 would appear to be associated with a western extension to the block attached to the western side of the 1826 gatehouse, depicted on a plan of the prison dated to 1879. This cartographic source indicates that this new range extended as far as the western limit of the north-eastern wing of the original prison.

20th-century development of the prison

- 8.39 Sometime around the turn of the 20th century most of the Blackburn's original prison buildings were demolished, and a number of features and deposits identified in the evaluation are evidently directly associated with this activity.
- 8.40 Layers of demolition rubble, up to 0.75m thick, were identified in Trenches 9, 10, 11, 12 and 15 and a number of the inverted arches within the brick foundations of Blackburn's original prison were also infilled with brick and concrete around this time. Evidently also associated with this phase of activity was the robbing of wall 1515 in Trench 15, which was probably carried out to recover the ashlar with which it was constructed.
- 8.41 Excavation of Trench 4 revealed two walls associated with the execution chamber constructed in 1912 and visible on an aerial photograph of the site from 1928. It is probable that the two large concrete blocks which contained metal post stubs were associated with the internal apparatus. The chamber was demolished in 1966.
- 8.42 A number of changes to the layout of the prison by 1927 are evident from available mapping. The latest brick walls recorded in Trench 11, including the row of four cells identified at the eastern end of the trench, are undoubtedly associated with a new reception building in this location. Wall 1004 in Trench 10 is associated with the adjacent laundry, whilst brick structure 1503 in Trench 15 may represent the squared end of a presumed length of wall extending from a small building to the

west. It was evident within Trenches 10 and 11 that construction of the 20th century buildings had, at least in part, utilised the earlier foundations of Blackburn's prison.

- 8.43 Dieffenthaler and Gujba have illustrated the development of the site from the construction of Blackburn's original prison, including that of the gardens (Dieffenthaler and Gujba 2015, 59-60). This work demonstrates that deposits 611 and 612 in Trench 6 and 1560 in Trench 15 are likely to be associated with areas of garden which were established in the period between c. 1927 and c. 1946. It is now apparent that these two open garden areas, together with others around the prison, were used for the burial of prisoners executed during this period.
- 8.44 Although a series of six graves are depicted on a Home Office plan of 1935 as being located immediately east of the debtors' prison, no evidence of these burials was identified despite being targeted by Trench 2. Elsewhere, the northern end of feature 608 within Trench 6, which had been cut through earlier brickwork, contained a considerable quantity of lime. Although no skeletal remains were in evidence, this feature was grave-like in form and lay within an area where three graves are depicted on the 1935 Home Office plan (graves 14, 15 and 16). It is perhaps pertinent that a note on the same cartographic source indicates that the human remains from graves 14, 15 and 16 were moved on 7 August 1962 to a grave located to the east of the debtors' prison. Such evidence suggests that the eastern limit of the current site still remained as a burial ground in the third quarter of the 20th century.
- 8.45 The three graves identified in Trench 15 appear to have been located adjacent to the eastern wall of a narrow, rectangular building depicted on the 1946 plan of the site. Grave 1547 is indicated as grave number 13 on the 1935 Home Office plan, however the remaining two graves here are not represented on that cartographic source. It is possible that grave 1547 represents that of Arthur Henry Franklin who was executed in June 1935 (Evans 2011).
- 8.46 The inclusion of substantial quantities of lime within all four of the identified graves is noteworthy. However, it is not known whether the bodies of the executed prisoners were covered in lime in an attempt to dissolve them through the caustic effects of this material, or whether the lime was deposited as a hygienic measure. Research has shown that when slaked with water, either through deliberate action or gradually by moisture in the ground, this can have the opposite effect and actually preserve

the body. Certainly the effects of lime on corpses was being researched as late as the 1920s (Adam 2016).

- 8.47 The dark, humic soil layer, 934, identified late in the stratigraphic sequence within Trench 9 appears to relate to the addition of a rectangular race course by 1946, as indicated by Dieffenthaler and Gujba (2015, 60) and clearly visible on aerial photographs from around this time.
- 8.48 Excavation of Trench 8 confirmed that the foundations of the perimeter wall in this location, which is known to have been rebuilt between 1952 and 1970 during road widening works, were indeed different from those exposed in nearby Trench 7.
- 8.49 The foundations and service trenches encountered within Trench 3 were entirely consistent with the construction of C wing in the 1950s to 1960s.

Conclusions

- 8.50 In conclusion, the archaeological evaluation has demonstrated that significant deposits and structural remains associated with the medieval castle, not least the substantial keep building, survive in a relatively good state of preservation, often at a relatively shallow depth below the current ground level. The fieldwork also identified deposits associated with the later use of the site as the County Gaol in the later medieval/early post-medieval period, including a number of burials. It also demonstrated that extensive well-preserved remains of the late 18th-century prison survive exactly where they may have been expected. It has also been possible to correlate numerous features and deposits with the later development of the site throughout the 19th and 20th century, through the documentary, cartographic and photographic evidence.

9. CA PROJECT TEAM

- 9.1 Fieldwork was undertaken by Mark Brett, assisted by Alistair Barber, Sam Bateman, Anthony Beechey, Jack Harrison, Michael Joyce, Jess Stevens, Alex Thomson, Franco Vartuca, Elisa Vecchi, Greg Crees and Chris Watts. The report was written by Mark Brett with contributions by Greg Crees. The finds and biological evidence reports were written by Ed McSloy and Sarah Cobain respectively. The report on the faunal remains was prepared by Andy Clarke. The illustrations were prepared by Sam O'Leary and Aleksandra Osinska. The archive has been compiled by Mark

Brett, and prepared for deposition by Hazel O'Neill. The project was managed for CA by Cliff Bateman.

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Cartographic Resources

1780 Hall & Pinnell Map of Gloucester

1843 Causton Map of Gloucester

1852 Board of Health Map of Gloucester



APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
1	100	Layer		Tarmac surface	Modern tarmac surface			0.14	
1	101	Layer		Make-up/levelling deposit	Modern make-up/levelling deposit for tarmac surface made of gravel/stone chippings.			0.68	
1	102	Masonry	104	Brick pathway	Red bricks laying on bed, bonded with silty clay.	>0.5	0.86	0.12	
1	103	Layer	104	Bedding deposit	Bluish grey silty clay with occasional charcoal flecks.	>0.5	0.86	0.12	
1	104	Cut		Construction cut for 103	Linear, shallow sides with flat base, NE/SW alignment.	>0.5	0.86	0.12	
1	105	Layer	108	Well backfill	Mid yellowish grey sandy gravel with fragments of bricks, limestone, plaster and wood.		d=1.20	>0.4	C19
1	106	Layer	108	Construction cut backfill	Dark grey sandy silt with occasional flecks of charcoal.		d=1.90	N/K	
1	107	Masonry	108	Brick well	Well; unbonded red bricks. Probably contemporary with 1826 prison.		d=1.70	>0.33	
1	108	Cut		Construction cut for 107	Circular shape. Not excavated.			N/K	
1	109	Layer		Demolition deposit	Mid yellowish grey deposit of silt, sand and rubble (fragments of bricks, limestone, slate). Possibly related to the demolition of Blackburn's prison.	>20.00	>3.00	>0.70	MLC18
1	110	Fill	111	Fill of pit	Mid yellowish brown/grey silty sand with fragments of brick, associated with demolition material. Not excavated. Possibly contemporary with 109.	1.15	1.80	N/K	
1	111	Cut		Pit/hollow	Sub-oval modern pit. Not excavated.	1.15	1.80	N/K	
1	112	Fill	113	Fill of waste pit	Mid yellowish white deposit of lime with some domestic waste material.		1.80	0.22	MLC18
1	113	Cut		Waste pit	Sub oval shape, sides with gentle slope at the top and moderate at the bottom, broad concave base, N/S orientation. Could be related to Blackburn's prison occupation.		1.80	0.22	
1	114	Layer		Ash dump deposit	Mid grey ash with occasional silt pockets and occasional fragments of charcoal (<10%).	3.20	>2.00	0.30	LC17-C18
1	115	Fill	116	Fill of ditch	Mid blackish brown clayey silt with occasional fragments of charcoal (10-15%),	>2.00	0.90	0.40	C18

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					rich in domestic waste material.				
1	116	Cut		Drainage ditch?	Linear shape, moderately steep sides, concave base? NE/SW orientation. Partially excavated.	>2.00	0.90	0.40	
1	117	Layer		Garden soil	Dark greyish brown clayey silt with fragments of charcoal, lime and domestic waste.	>20.00	>2.00	0.78	LC17-C18
2	200	Layer		Tarmac surface	Modern tarmac surface.			0.10	
2	201	Layer		Make-up/levelling deposit	Stone chipping.			0.42	
2	202	Fill	203		Dark greyish black sandy silt with abundant modern waste material (50%).	1.24	1.00	0.68	C19
2	203	Cut		Waste pit	Rectangular shape, vertical sides and flat base, NW/SE orientation. Modern.	1.24	1.00	0.68	
2	204	Layer		Demolition deposit	Dark yellowish grey silty sand with fragments of bricks, limestone and gravel. Possibly related to Blackburn's prison demolition.	>4.00	>2.00	0.40	
2	205	Deposit		Make up layer?	Mid greenish grey clay with a small percentage of silt. It contains rare flecks of charcoal and small-medium fragments of CBM, limestone, pottery, glass, animal bone.	>19.30	>3.00	0.28	C18
2	206	Layer		Soil deposit?	Charcoal-rich blackish brown clayey deposit sealing medieval deposits/features.	17.00	0.60	0.12	
2	207	Fill	209	Fill of ditch	Dark greyish brown sandy silt with occasional small fragments of limestone, rare flecks of charcoal, rare small-medium fragments of CBM and rare small fragments of pottery.	17.00	0.60	0.12	RB
2	208	Fill	209	Fill of ditch	Very dark brownish grey sandy silt with occasional flecks of charcoal, occasional small-medium fragments of limestone, rare small-medium pebbles, slags and fragments of CBM, animal bone, pottery.	>20.80	>0.34	0.60	RB
2	209	Cut		Ditch	Sharp break of slope at top, slightly irregular-stepped sides, sharp break of slope at the bottom and flat base.	>19.30	>2.50	1.10	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
2	210	Layer		Soil deposit	Mid brown clayey silt with occasional patches of blue clay.	>20.00	>2.00	0.78	LC1-C2
2	211	layer		Soil deposit?	Mid bluish grey silty clay with occasional gravel (10-15%).	>1.80	>0.5	>0.04	C3-C4
3	300	Layer		Tarmac surface				0.05	
3	301	Layer		Make-up/levelling deposit	Make-up deposit for tarmac surface; dark grey sandy gravel.			0.10	
3	302	Layer		Make-up layer	Light yellowish brown deposit of rubble.			0.15	
3	303	Fill	305	Construction cut backfill					
3	304	Masonry	305	Modern drain					
3	305	Cut		Construction cut					
3	306	Fill	308	Construction cut backfill					
3	307	Masonry	308	Concrete foundation	Foundation of W facing wall of C Wing.				
3	308	Cut		Construction cut					
3	309	Layer		Demolition deposit	Limestone and brick rubble including a number of well-dressed/shaped and some whit washed limestone blocks.	>2.00		0.42	
3	310	Layer		Backfill above heating duct	Greyish black clayey silt with small fragments of brick and stone.	>6.00	0.52	>0.10	
3	311	Masonry	311	Heating duct	Concrete heating duct with N/S orientation.				
3	312	Cut		Construction cut for 311	Linear, N/S orientation.		1.40	0.42	
3	313	Layer		Garden soil	Dark greyish black silty clay.			0.20	
3	314	Layer		Garden soil	Dark greyish black silty clay.			0.80	
3	315	Layer		Demolition deposit	Deposit of rubble in a silty clay deposit.			0.25	
3	316	Layer			Mid brown sandy silt deposit visible in machine dug sondage			N/K	
4	401	Layer		Tarmac surface	Modern tarmac surface			0.21	
4	402	Layer		Make up/levelling	Stone chipping			0.10	
4	403	Fill	407	Backfill over concrete		0.72	0.51	0.32	
4	404	Fill	407	Concrete support for beams		0.90	0.70	0.26	
4	405	Fill	407	Construction cut backfill	Fill around beam.	0.18	0.18		
4	406	Fill	407		Beam/pole support. Steel?	0.18	0.18		
4	407	Cut		Construction cut		0.90	0.70	0.26	
4	408	Fill	412	Backfill over concrete		1.05	0.62	0.18	
4	409	Fill	412	Concrete support for beams		1.10	0.42		
4	410	Fill	412	Construction cut backfill	Fill around beam.	0.18	0.18		

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
4	411		412	Beam		0.18	0.18		
4	412	Cut		Construction cut		>1.10	>1.00	>0.42	
4	413	Fill	414	Fill of post hole		0.16	0.14	0.20	
4	414	Cut		Cut for post/pole support		0.16	0.14	0.20	
4	415	Fill	418	Construction cut backfill	Light orangey grey clayey silt with rubble (fragments of CBM and mortar).	4.00	0.40	>0.15	
4	416	Masonry	418	Walls	Squared, rough finished, red bricks bonded with modern sand cement, English bond. S and E walls of execution chamber.	E >4.00 W >3.20	>0.6	>0.6	
4	417	Fill	418	Bedding deposit	Mid brownish orange mix of cement and CBM fragments.	3.56	0.75	0.26	
4	418	Cut		Construction cut for 416	"L" shape: one segment with N/S orientation, the other one with E/W. Not excavated.	>4.00	>3.26	>0.86	
4	419	Fill	420	Ceramic pipe	NE/SW orientation.	>2.70	0.72	0.20	
4	420	Cut		Cut for 419	NE/SW orientation.	>2.71	0.72	0.20	
4	421	Layer			Mid greyish brown sandy clay with fragments of stone, CBM and flecks of charcoal.	1.40	2.10	0.42	RB/AS/MED
4	422	Fill	424	Construction cut backfill	Mid-dark brownish grey sandy silt with occasional charcoal flecks and fragments of stones.	0.10	0.98	>0.45	
4	423	Masonry	424	Culvert	Squared, curved bricks in regular courses (English bond) bonded with cement.	0.98	0.26	>0.45	
4	424	Cut		Construction cut for 423	E/W orientation. Not excavated.	0.98	0.36	N/K	
4	425	Fill?		Possible upper fill of castle ditch	Mid-dark greyish brown clayey silt with fragments of stones and flecks of charcoal.	1.88	3.50	0.52	PMED
4	426	Fill?		Possible fill of castle ditch	Dark greyish brown clayey silt with fragments of stones, CBM and flecks of charcoal.	1.88	3.50	0.24	C17-C18
5	500	Layer		Tarmac surface				0.17	
5	501	layer		Make-up/levelling for tarmac				0.22	
5	502	Layer			Dark greyish brown silt with rare small fragments of stone.			0.34	
5	503	Layer		Garden soil	Dark grey/black silt with rare small stones.			0.25	
5	504	Layer			Mid grey clayey silt with rare flecks of charcoal, small fragments of stone and brick.			>0.42	LC18-EC19

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
5	505	Masonry	507	Garden wall?	Red bricks bonded with lime mortar with English cross bond.		1.10	>0.45	
5	506	Fill	507	Construction cut backfill	Mid greyish brown silt with rare small fragments of stone.		0.18	>0.30	
5	507	Cut		Construction cut for 505			1.18	>0.31	
6	601	Layer		Modern surface		6.00	1.00	0.02	
6	602	Layer		Levelling deposit	Concrete and bricks.	6.00	1.00	0.32	
6	603	Layer		Sub-base for 602?	Sand and gravel mix.	6.00	1.00	0.10	
6	604	Fill	608	Upper fill of grave	Dark orangey brown sandy silt with occasional fragments of stone and rare flecks of charcoal.	1.00	2.80	0.70	
6	605	Fill	608	Fill of grave	Light grey lime with occasional stone flecks.		0.82	0.10	
6	606	Fill	608	Fill of grave	Mid greyish brown sandy silt with rare small fragments of stone and one iron nail.		0.76	0.10	
6	607	Fill	608	Lowest fill of grave	Light grey/white lime without inclusions.	0.98	0.61	0.20	
6	608	Cut		Grave cut	Moderately sloping sides. Partially excavated.	0.98	0.82	0.34	
6	609	Fill	610	Fill of drain					
6	610	Cut		Drain cut	N/S orientation				
6	611	Layer		Garden soil	Mid-dark greyish brown sandy silt with rare small fragments of stone and flecks of charcoal.	4.00	1.25	>0.50	C18
6	612	Layer		Garden soil	Mid-dark greyish brown sandy silt with rare small fragments of stone and flecks of charcoal.	4.00	0.28	>0.50	C19-C20
6	613	Fill	615?	Construction cut backfill	Mid orangey brown sandy silt with flecks of charcoal, fragments of bricks and of stone.	0.52	4.00	0.30	
6	614	Masonry	615	Modern drain	Ceramic pipe with E/W orientation.	0.50	0.27	N/K	
6	615	Cut		Construction cut for 614	Not visible at the time of recording.	N/K	N/K	N/K	
6	616	Fill	618		Mid greyish brown sandy silt with rare fragments of stone and flecks of charcoal.	>4.00	0.38	N/K	
6	617	Masonry	618	Culvert	Northern wall of culvert made of red bricks bonded with cement and sand mortar. E/W orientation. Possibly related to 1826 gatehouse.	>4.00	0.18	N/K	
6	618	Cut		Construction cut for 618	Linear shape, E/W orientation. Not excavated.	>4.00	0.28	N/K	
6	619	Masonry	622	Wall	Southern wall of culvert made of red bricks bonded with	4.00	0.18	N/K	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					strong cement and sand mortar.				
6	620	Cut		Construction cut for 619	E/W orientation. Not visible at the time of recording.	N/K	N/K	N/K	
6	621	Masonry	622	Wall	Red bricks bonded with sandy cement mortar, English bond, E/W orientation.	1.18	0.32	N/K	
6	622	Cut		Construction cut for 621		N/K	N/K	N/K	
6	623	Fill	627	Construction cut backfill	Mid greyish brown sandy silt moderately cemented with common fragments of stone and rare flecks of charcoal.	1.28	1.00	N/K	
6	624	Fill	627	Construction cut backfill	Mid greyish brown sandy silt moderately cemented with common fragments of stone and rare flecks of charcoal.	1.50	0.18	N/K	
6	625	Fill	627	Construction cut backfill	Mid greyish brown sandy silt moderately cemented with common fragments of stone and rare flecks of charcoal.	1.20	0.20	N/K	
6	626	Masonry	627	Wall foundation	Cement with marks of bricks, extending over the top of the wall.	>1.90	>1.98	0.32	
6	627	Cut		Construction cut for 626	"L" shape. Not excavated.	>1.90	>1.98		
6	628	Layer		Garden soil	Mid greyish brown sandy silt with occasional small fragments of stone and rare fragments of pottery, animal bone.	1.60	0.70	>0.26	MLC18
6	629	Layer			Dark brownish grey sandy silt with abundant flecks of charcoal, rare fragments of pottery and animal bone. Not excavated.	0.35	0.70	0.20	
6	630	Fill	618	Construction cut backfill	Mid orangey brown sandy silt with rare small fragments of stone and flecks of charcoal. Not excavated.	>4	>0.10	N/K	
6	631	Layer		Garden soil	Mid greyish brown sandy silt with occasional small fragments of stone and rare fragments of pottery, animal bone.	0.60	0.16	N/K	
6	632	Layer			Dark brownish grey sandy silt with abundant flecks of charcoal, rare fragments of pottery and animal bone. Not excavated.	0.56	0.96	N/K	
7	700	Layer		Tarmac surface				0.12	
7	701	Layer		Make-up/levelling for tarmac				0.08	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
7	702	Masonry		External paving	Pennant sandstone flagstone (mostly smashed up fragments, <i>not in situ</i>).			0.05	
7	703	Layer		Dump/levelling deposit	Mid greyish brown sandy silt mixed with abundant crushed building rubble (CBM, stone, slate). Preparation for flagstones?			0.15	
7	704	Cut		Modern service trench	Not excavated	>2.05	>0.98	>0.70	
7	705	Fill	704		Silty clay with occasional building rubble (small fragments of CBM, stone, slate) and occasional fragments of coal, pottery, oyster shell, glass (domestic refuse). Not excavated.	>2.05	>0.98	>0.70	
7	706	Fill		Construction cut backfill for 707	Mid greenish grey/brown silty clay with occasional small fragments of crushed building rubble (CBM, stone, slate, glass), occasional domestic refuse (pottery, clay pipe, glass, oyster shell, charcoal, coal).	>2.05	>1.13	>0.78	
7	707	Masonry		Present day perimeter wall and footing	Large limestone blocks roughly dressed (some reused) bonded with a pale greyish white mortar.	N/K	N/K	N/K	
8	800	Layer		Tarmac surface				0.10	
8	801	Layer		Backfill?	Formed by various layers of mid yellow gravel, tarmac and mid grey silty clay.			0.80	
8	802	Layer			Mid grey clay with rare small stones.			0.20	
8	803	Masonry		Modern prison wall foundation	Red bricks bonded with grey lime mortar, English cross bond.	>2.30	>2.50	>1.10	
9	900	Layer		Tarmac surface				0.30	
9	901	Layer		Make-up/levelling for tarmac	Mainly formed by reddish brown gravel/stone chipping.			0.50	
9	902	Layer		Demolition deposit	Formed by large stones, brick fragments and slates in a matrix of light brown silty sand.			0.70	C14-C15; C18
9	903	Layer		Garden soil	Very dark grey sandy silt with common flecks of charcoal, occasional fragments of animal bone and rare small-medium fragments of stone, pottery, CBM.			0.46	MLC17
9	904	Masonry	912	Wall foundation	Blackburn's prison E/W wall made of dark orange bricks bonded with bleeding cement	>4.00	0.80	>1.30	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					mortar; two inverted arches visible.				
9	905	Masonry	916	Wall foundation	Blackburn's prison E/W wall made of dark orange bricks bonded with bleeding cement mortar; two inverted arches visible.	>4.00	0.94	>1.54	
9	906	Masonry	921	Wall foundation	Roughly squared stones on the top of 4 courses of limestone blocks bonded with cement. Later addition to Blackburn's prison.	2.00	>1.30	1.50	
9	907	Masonry	910	Wall foundation	Blackburn's prison N/S wall made of dark orange bricks bonded with bleeding cement mortar; two inverted arches visible.	>4.50	0.90	>1.58	
9	908	Masonry		Wall	Blocking wall built on the top of northern inverted arch of 907; made of roughly squared stones and bricks.	>0.80	0.45	0.60	
9	909	Masonry		Wall	Five courses of dark orange bricks. Later addition to Blackburn's prison.	>1.07	0.45	0.30	
9	910	Cut		Construction cut for 907	Linear cut with N/S orientation	>3.70	0.25	>0.66	
9	911	Fill	910	Construction cut backfill	Dark greyish brown sandy silt with flecks of charcoal and fragments of CBM, stones and pebbles.	>3.70	0.25	>0.66	
9	912	Cut		Construction cut for 904		>2.20	0.20	>0.30	
9	913	Fill	912	Construction cut backfill	Light brownish yellow silty sand with rare small fragments of limestone, CBM and animal bone.	>2.20	1.20	>0.30	
9	914	Layer?		Make up deposit for 915?	Deposit formed by various thin layers of dark brown and yellow sand and silt with fragments of stone, animal bone, pottery and flecks of charcoal.	2.04	>0.90	>0.24	C14+
9	915	Masonry?		Surface?	Possible surface made of flat stones bonded with friable white mortar.	2.04	>0.90	0.14	
9	916	Cut		Construction cut for 905	Linear cut with E/W orientation visible on both sides of the wall.	>3.50	1.33	>0.3	
9	917	Fill	916	Construction cut backfill	Dark grey/black sandy silt with flecks of charcoal, pebbles and small fragments of stone, animal bone, CBM.	>3.50	2.33	>0.3	
9	918	Masonry		Wall?	Possible wall structure made of roughly hewn sandstone bonded with lime mortar. Heavily disturbed by later intrusions.	0.70	0.45	0.15	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
9	919	Cut		Ditch/gully	Linear cut of small ditch/gully with NE/SW orientation.	>2.00	0.36	>0.26	
9	920	Fill	919	Fill of ditch	Dark brownish grey sandy silt with occasional small fragments of stone.	>2.00	1.36	>0.26	
9	921	Cut		Construction cut for 906	Linear cut with N/S orientation. Not excavated.	1.95	>1.40	>0.70	
9	922	Fill	921	Construction cut backfill	Dark brown sandy silt with occasional pebbles, small fragments of stone and CBM.	1.95	>1.41	>0.70	
9	923	Layer		Rubble deposit	Dark brownish grey modern deposit of clayey silt with domestic refuse (fragments of pottery, clay pipe, metal objects, glass) and building rubble (gravel, stones, fragments of CBM).	1.50	>0.60	>0.30	PMED
9	924	VOID							
9	925	Layer		Surface?	Very dark brownish grey sandy silt with common fragments of limestone, CBM, animal bone and flecks of charcoal. Not excavated.	N/K	1.50	N/K	
9	926	Deposit		Soil deposit/build-up	Mid greyish brown clayey silt with occasional small-medium fragments of stone and rare flecks of charcoal.	>19.00	>11.50	0.64	C14-C15
9	927	Cut			Cut feature. Only a limited length visible. Not excavated.	>1.80	>1.10	>0.30	
9	928	Fill	927		Dark brownish grey sandy silt with common small pebbles, flecks of mortar and fragments of stone, CBM, animal bone, charcoal. Not excavated.	>1.80	>1.10	>0.30	C13-C14
9	929	Cut		Grave cut?	Only the corner is visible with vertical sides. Not excavated.	>1.00	>0.30	>0.15	
9	930	Fill	929	Fill of grave?	Very dark brownish grey sandy silt with occasional fragments of stone, CBM and animal bone.	>1.00	>0.30	>0.15	
9	931	Layer		Soil deposit/build-up	Mid brown sandy silt with occasional small-medium stones. Not excavated.	>19.00	>11.50		C13-C14
9	932	Cut		Pit	Rounded break of slope at the top, straight sides with moderate slope.		>1.00	>0.66	
9	933	Fill	932	Fill of pit	Mid greyish brown sandy silt with common roughly squared stones and		>1.00	>0.66	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					fragments of CBM.				
9	934	Layer		Garden soil	Very dark grey sandy silt with common flecks of charcoal, rare flecks of mortar and rare small fragments of animal bone, stone, pottery, CBM.	>19.00	>5.00	0.22	
9	935	Cut			Linear cut feature with NW/SW orientation. Not excavated.	>3.80	>1.80	N/K	
9	936	Fill	935		Black burnt deposit with patches of light brownish yellow silty sand, common flecks of charcoal, occasional fragments of animal bone and rare fragments of limestone. Not excavated.	>3.80	>1.80	N/K	
9	937	Layer		Soil deposit/build-up	Mid yellowish brown silty sand with common pebbles, common fragments of CBM and occasional fragments of limestone. Not excavated	>1.80	>1.30	N/K	
9	938	Fill	940	Fill of grave	Dark brownish grey silty clay with rare small stones and occasional flecks of charcoal.	>0.80	0.79	0.26	MC17-C18
9	939	Skeleton	940	Grave	Supine, extended skeleton with NW/SE orientation. Lower part of the body disturbed by machine when opening the trench. Upper part of the body not excavated.	>0.24	0.33	N/K	
9	940	Cut		Grave cut	Rectangular shape, slightly concave sides and base, NW/SE orientation.	>0.80	0.79	0.26	
9	941	Fill	942	Fill of grave	Mid brownish grey silty clay with rare small-medium sized stones and flecks of charcoal.	>0.65	>0.30	0.22	
9	942	Cut		Grave cut	Rectangular shape with NW/SE orientation, faintly visible in plan. Disturbed by modern intrusions.	>0.65	>0.30	0.22	
9	943	Layer		External yard surface?	Dark grey silty clay with occasional small-medium sized stones. Not excavated.	>2.10	1.70	N/K	
9	944	Masonry		Wall	Roughly hewn blocks of sandstone bonded with lime mortar. Inner bailey wall of medieval castle. Not fully excavated.	>1.30	>1.50	0.20	
9	945	Masonry		Wall?	Possible wall structure made of roughly hewn stones. Heavily disturbed by later intrusions, mortar	>1.00	0.70	N/K	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					eroded.				
9	946	Cut			Modern cut feature visible in southern section of trench.	N/K	N/K	N/K	
9	947	Fill	946		Modern rubble.	N/K	N/K	N/K	
9	948	Cut			Modern cut feature near 907.	N/K	N/K	N/K	
9	949	Fill	948		Modern rubble.	N/K	N/K	N/K	
9	950	Fill	951	Fill of grave/burial pit	Mid brownish grey clayey silt with occasional patches of sand and small-medium stones, rare human and animal (?) bones.	>1.30	0.95	0.22	C13
9	951	Cut		Cut of grave/burial pit	Sub-oval shape, nearly vertical sides with sharp break of slope at the top and rounded break of slope at the bottom, concave base.	>1.30	0.95	0.22	
10	1000	Layer		Tarmac surface				0.12	
10	1001	Layer		Make-up/levelling	Modern concrete bedding deposit for tarmac surface.			0.54	
10	1002	Layer		Demolition deposit	Fragments of CBM and gravel in a matrix of yellowish brown clayey silt.			0.74	
10	1003	Layer	1005	Construction cut backfill	Light grey silty sand with building rubble (brick and limestone fragments). Fill of 1920's prison construction cut.	1.30	0.30	>0.96	
10	1004	Masonry	1005	Walls and drainage features	Various elements made of bricks and concrete built on top of Blackburn's prison. Probably related to the buildings seen in 1920s photographs.				
10	1005	Cut		Construction cut for 1004	Linear cut with N/S orientation, very steep sides.	1.30	0.30	>0.96	
10	1006	Fill	1007	Construction cut backfill	Light grey silty sand with occasional small fragments of red bricks and limestone.	>4.00	0.30	>0.18	
10	1007	Masonry	1008	Wall	Mid orange hand-made bricks laying on bed, stretchers bonded with cement mortar. Wall of exercise yard visible in 1852 mapping.	>4.00	0.33	0.32	
10	1008	Cut		Construction cut for 1007	Linear shape with NE/SW orientation, vertical sides. Not fully excavated.	>4.00	0.60	>0.18	
10	1009	Layer		Bedding deposit for 1010	Blackish grey silty clay with occasional small fragments of brick and flecks of mortar.	1.90	1.60	>0.04	
10	1010	Masonry		Surface	Roughly squared blocks of limestone laid on bed. Paving relating to 1852	1.50	0.65	0.10	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					exercise yard.				
10	1011	Fill	1013	Construction cut backfill	Dark greyish brown sandy silt with demolition rubble (fragments of brick and limestone). Not fully excavated.	3.75	0.40	0.48	
10	1012	Masonry	1013	Wall foundation	Roughly hewn limestone blocks and flags (some reused), rubble and bricks in random courses bonded with extruded concrete mortar. Related to garden wall visible in 1843 mapping.	3.75	0.42	0.45	
10	1013	Cut		Construction cut for 1013	Linear shape with E/W orientation, vertical sides. Not fully excavated.	3.75	1.00	>0.48	
10	1014	Layer		Demolition deposit	Mid greyish yellow silty sand with common limestone rubble and mortar.	>2.5	>2.00	0.18	
10	1015	Fill	1017	Construction cut backfill	Dark greyish brown silty clay with occasional flecks of limestone and mortar.	>2.00	0.25	N/K	C17+
10	1016	Masonry	1017	Wall and foundation	Blackburn's prison walls made of orange/light red bricks and limestone blocks bonded with mid yellowish grey lime and sand cement. One inverted arch visible.	>7.50	0.90	>0.97	
10	1017	Cut		Construction cut for 1016	Linear shape with various orientations (visible in different parts of the trench), vertical sides. Not excavated	>2.00	0.25	N/K	
10	1018	Fill	1019	Fill of pit	Light reddish brown silty clay with rare big stones.	>1.00	>1.00	0.68	C13-C15
10	1019	Cut		Pit	Gently sloping sides; not fully excavated (seen within 1m ² sondage).	>1.00	>1.00	0.68	
10	1020	Layer		Keep backfill	Greyish black silty clay with rare small stone fragments and pebbles. Visible within 1 x 1 m sondage.	>1.00	>1.00	0.37	LC13-C14; MC16-C18
10	1021	Layer		Keep backfill	Light greyish brown silty clay with common gravel and fragments of stone. Visible within 1 x 1 m sondage, not fully excavated.	>1.00	>1.00	>0.27	LC13-C15
10	1022	Layer		Fill of pit?	Dark brown silty clay with rare gravel, small fragments of animal bone, small flecks of mortar and charcoal. Not excavated.	>1.50	>1.00	N/K	C18
10	1023	Masonry		Wall	NE/SW return of main keep wall made of limestone ashlar blocks in regular	>4.50	>2.00	>1.20	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					courses bonded with bleaching sandy lime mortar, rubble interior/core. Only internal face visible.				
10	1024	VOID							
10	1025	Layer		Demolition deposit	Dark greyish brown sandy silt with abundant big blocks/fragments of limestone, occasional fragments of CBM, rare gravel, rare flecks of mortar and charcoal.	>2.00	>1.30	1.00	
10	1026	Masonry		Wall	NW/SE wall made of limestone ashlar blocks in regular courses bonded with sandy lime mortar, rubble interior/core. Only internal face visible. Internal partition of keep wall.	>2.50	>1.05	>1.10	
11	1100	Layer		Tarmac surface				0.08	
11	1101	Layer		Make-up/levelling	Modern concrete bedding deposit for tarmac surface.			0.17	
11	1102	Layer		Demolition deposit	Mixed CBM and gravel in a matrix of yellowish brown clayey silt.			0.30	
11	1103	Masonry	1156	Walls/surfaces	Various structural elements made of bricks and concrete with random finish and coursing. Post-dating the demolition of Blackburn's prison.		0.80	0.55	
11	1104	Masonry	1118	Wall	Western wall of corridor in Blackburn's prison, made of bricks bonded with dark grey mortar. Three inverted arches visible.	>8.00	0.83	>0.80	
11	1105	Masonry	1122	Walls/surfaces	Various structural elements made of bricks and concrete with random finish and coursing. Probably related to the building visible in the 1920's photographs	>8.00		0.90	
11	1106	Masonry	1120	Wall	Eastern wall of corridor in Blackburn's prison, made of bricks bonded with dark grey mortar.	>8.00		>0.83	
11	1107	Masonry		Wall	Eastern external wall of Blackburn's prison, made of bricks bonded with dark grey mortar.	>1.50	>0.50	>0.05	
11	1108	Masonry		Wall	North eastern face of internal wall of castle keep, made of ashlar bonded with light yellowish grey mortar.	>3.50	>0.30	>0.43	
11	1109	Masonry		Wall	North eastern face of internal wall of castle keep, made of ashlar bonded with light				

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					yellowish grey mortar. Visible on eastern side of 1104.				
11	1110	Masonry		Wall	North eastern keep wall made of ashlar and CBM bonded with light grey mortar and with a rubble interior.	>10.00	4.50	N/K	C19
11	1111	Masonry		Wall	North eastern keep wall made of ashlar and CBM bonded with light grey mortar and with a rubble interior.				
11	1112	Masonry		Wall	North eastern keep wall made of ashlar and CBM bonded with light grey mortar and with a rubble interior.				
11	1113	Masonry		Wall	North eastern keep wall made of ashlar and CBM bonded with light grey mortar and with a rubble interior.				
11	1114	Masonry	1134	Walls/surfaces	Various structural elements made of bricks and concrete with random finish and coursing. Four cells surviving along western edge of trench. Probably related to the reception building visible in the 1920's photographs.			>0.70	
11	1115	Masonry	1132	Wall	NW/SE aligned wall made of bricks bonded with light grey mortar probably related to the exercise yards visible in 19th century plans.	4.40	0.32	0.35	
11	1116	Cut		Modern intrusion		2.00	1.20	0.60	
11	1117	Fill	1116	Modern intrusion	Modern deposit made of CBM, tarmac, concrete and gravel.	2.00	1.20	0.60	
11	1118	Cut		Construction cut for 1104				N/K	
11	1119	Fill	1118	Construction cut backfill	Yellowish brown sand with mortar and gravel.			N/K	
11	1120	Cut		Construction cut for 1106				N/K	
11	1121	Fill	1120	Construction cut backfill	Yellowish brown sand with mortar, gravel and ashlar rubble inclusions.			N/K	
11	1122	Cut		Construction cut for 1105				N/K	
11	1123	Fill	1122	Construction cut backfill	Concrete.			N/K	
11	1124	Cut		Post medieval truncation	Linear with E/W orientation and vertical sides	>8.00	1.20	>0.86	
11	1125	Fill	1124	Deliberate backfill	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.	>8.00	1.20	>0.86	
11	1126	Cut		Modern drain	Linear, with N/S	>8.0	0.30	0.30	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					orientation.	0			
11	1127	Fill	1126	Fill of drain	Grey brownish sandy silt/clay with fragments of CBM and stone.	>8.0 0	0.30	0.30	
11	1128	Cut		Modern drain	Linear, with N/S orientation.	>8.0 0	0.60	0.56	
11	1129	Fill	1128	Fill of drain	Grey brownish sandy silt/clay with fragments of CBM and stone.	>8.0 0	0.60	0.56	
11	1130	Cut		Modern truncation	Linear, with E/W orientation.	>15. 00	0.50	0.55	
11	1131	Fill	1131	Fill of modern truncation	Light greyish brown sandy silt with gravel, fragments of stone and CBM.	>15. 00	0.50	0.55	
11	1132	Cut		Construction cut for 1115	Linear, with NW/SE orientation.	4.00	0.70	N/K	
11	1133	Fill	1132	Construction cut backfill	Made of concrete and CBM rubble.	4.00	0.70	N/K	
11	1134	Cut		Construction cut for 1114	Linear, with N/S orientation.			0.40	
11	1135	Fill	1134	Construction cut backfill	Concrete and CBM rubble.			0.40	
11	1136	Layer		Backfill of stairwell	Light greyish brown sandy clay with fragments of CBM.			>0.70	
11	1137	Layer		Backfill of room	Light yellowish brown sand with gravel and fragments of ashlar (possible disturbed elements of keep wall).	2.50	>0.70	>0.57	
11	1138	Layer		Demolition deposit	Light greyish/yellowish brown sandy silt with gravel, stone and CBM fragments.	>1.1 0	2.10	0.25	MED
11	1139	Layer		Soil build up	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.	>1.1 0	2.10	0.55	
11	1140	Layer		Soil horizon	Greenish brown and dark greyish brown silty clay with abundant fragments of animal bone and occasional fragments of CBM, stone, charcoal. Not excavated.	>1.1 0	2.10	>0.20	C14-C15
11	1141	Layer		Demolition deposit	Light greyish/yellowish brown sandy silt with gravel, stone and CBM fragments.				
11	1142	Layer		Soil build up	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.				
11	1143	Layer		Soil horizon	Greenish brown and dark greyish brown silty clay with abundant fragments of animal bone and occasional fragments of CBM, stone, charcoal. Not excavated.				C14- EC15
	1144	Layer		Demolition deposit	Light greyish/yellowish brown sandy silt with				

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					gravel, stone and CBM fragments.				
	1145	Layer		Soil build up	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.				
	1146	Layer		Soil horizon	Greenish brown and dark greyish brown silty clay with abundant fragments of animal bone and occasional fragments of CBM, stone, charcoal. Not excavated.				
	1147	Layer		Demolition deposit	Light greyish/yellowish brown sandy silt with gravel, stone and CBM fragments.				
	1148	Layer		Soil build up	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.				
	1149	Layer		Soil horizon	Greenish brown and dark greyish brown silty clay with abundant fragments of animal bone and occasional fragments of CBM, stone, charcoal. Not excavated.				
	1150	Layer		Rubble deposit	Light grey sand rich of gravel with ashlar blocks and masonry rubble.	10.0 0	6.00	0.50	
	1151	Layer		Soil build up	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.				
	1152	Layer		Soil horizon	Greenish brown and dark greyish brown silty clay with abundant fragments of animal bone and occasional fragments of CBM, stone, charcoal. Not excavated.				LC14-C15
	1153	Layer		Rubble deposit	Light grey sand rich of gravel with ashlar blocks and masonry rubble.				
	1154	Layer		Garden soil	Dark greyish brown silty clay with fragments of CBM, stone, mortar and plaster.				C12-C13
	1155	Layer		Rubble deposit	Light grey sand rich of gravel with ashlar blocks and masonry rubble.				
	1156	Cut		Construction cut for 1103	Linear shape, visible in various parts of the trench. Not excavated.				
	1157	Fill	1156	Construction cut backfill	Made of concrete and CBM rubble.				

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
	1158	Masonry		Wall	Little portion of castle wall visible between the structures 1104 and 1106.				
	1159	VOID							
	1160	Layer		Backfill of keep	Greyish black clayey silt with occasional stones and small pebbles. 1 x 1 m sondage excavated.	>1.00	>1.00	0.65	MLC4; C11-C13
	1161	Layer		Backfill of keep	Yellowish orange gravel in a sandy matrix with occasional medium sized stones.	>1.00	>1.00	0.22	
	1162	Layer		Backfill of keep	Dark grey/black clayey silt with occasional flecks of charcoal.	>1.00	>1.00	0.13	C14-C15
	1163	Layer		Backfill of keep	Orangey yellow gravel in a matrix of loose sand.	>1.00	>1.00	0.09	C13-C15
	1164	Layer		Backfill of keep	Light greyish brown silty clay with occasional fragments of pottery and animal bone.	>1.00	>1.00	0.34	C14-C15
12	1201	Layer		Tarmac surface				0.28	
12	1202	Layer		Make-up/Levelling	Modern concrete bedding deposit for tarmac surface.			0.30	
12	1203	Fill	1204	Fill of drain	Mid orangey brown sandy silt with abundant CBM rubble and stone fragments. Modern ceramic pipe.	3.20	0.42	0.52	
12	1204	Cut		Drain cut	"L" shape with N-S and E-W orientation; steep, concave sides and rounded break of slope at the base.	3.20	0.42	0.52	
12	1205	Layer		Levelling deposit?	Mid orangey/brownish grey clayey sand with common building rubble (stones, CBM fragments) and occasional flecks of charcoal.	1.06	0.60	0.24	
12	1206	VOID							
12	1207	Layer		Levelling deposit?	Mid to dark orangey grey sandy silt with common building rubble (stones, CBM fragments) and occasional flecks of charcoal.	>5.00	>5.00	0.69	
12	1208	Fill	1210	Construction cut backfill	Mid greyish orange silty sand with fragments of stone and CBM.	>5.00	1.10	>0.30	
12	1209	Masonry	1210	Drain/culvert	E-W orientated arched structure made of unfrogged red bricks bonded with mid yellowish grey, bleeding sandy lime mortar.	>4.00	1.10	>1.36	
12	1210	Cut		Construction cut for 1209	Linear shape with E-W orientation, vertical sides. Not fully excavated.	>4.00	1.10	>1.36	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
12	1211	Fill		Fill of drain	Mid to dark grey silty clay with rare fragments of brick. Primary fill of drain.	>4.00	0.75	1.10	
12	1212	Layer		Garden soil	Dark grey silty clay with rare flecks of decayed limestone and charcoal.	>3.05	>4.00	0.65	
12	1213	Layer		Soil build up	Mid grey clayey silt with rare small stones and oyster shells. Deposit formed following the disuse of 1217.	>3.05	>4.00	>0.32	
12	1214	Fill	1216	Construction cut backfill	Dark grey silty clay with rare fragments of stone and flecks of charcoal.	>2.30	0.36	>0.80	
12	1215	Masonry	1216	Wall	Blackburn's prison N-S wall made of unfrogged red bricks in regular courses (English bond) bonded with light grey sandy lime mortar. Two inverted arches partially visible, the southernmost contains dressed limestone blocks set (threshold).	>3.50	>0.60	>1.47	C18-C19
12	1216	Cut		Construction cut for 1215	Linear shape with N-S orientation, vertical sides. Not fully excavated.	>2.30	0.36	>0.80	
12	1217	Layer		Surface?	Mid grey silty clay with common small-medium stones. Not fully excavated.	>2.00	>3.20	N/K	
12	1218	Masonry		Wall repair	Wall repair made of unfrogged red bricks in regular courses (English cross bond) bonded with yellowish grey sandy lime mortar.	1.00	N/K	>1.40	
12	1219	Fill		Drain backfill	Dark grey/black clayey silt with common building rubble (worked and unworked stones, slabs and bricks).	>4.00	0.75	1.00	LC17-C18
12	1220	Fill		Levelling deposit?	Mid orangey/brownish grey clayey sand with common building rubble (stones, CBM fragments) and occasional flecks of charcoal.	1.80	0.60	0.24	
12	1221	Masonry		Blocking wall?	N-S wall made of unfrogged red bricks and stone slabs bonded in English cross with yellow sandy lime mortar.	0.48	0.28	0.40	C18-C19
13	1300	Layer		Tarmac surface				0.18	
13	1301	Layer		Make-up/Levelling	Reddish brown crushed building rubble (mostly bricks) mixed with sand and mortar.			0.06	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
13	1302	Layer			Cast concrete kerbstone set in pale yellow concrete/gravel mix base.			0.42	
13	1303	Masonry		Surface	External paving consisting of pennant sandstone flagstones bonded with pale yellowish sandy mortar mixed with charcoal and small sized building rubble.	>2.60	0.80	0.05	
13	1304	Layer		Dump/levelling deposit	Mid greyish brown clayey silt with flecks of charcoal, crushed fragments of building rubble and occasional small lenses of blue clay.	>2.60	>1.25	0.20	
13	1305	Masonry		Wall footing	Shallow footing made of unfrogged red bricks bonded with friable pale orangey brown sandy mortar. Possibly associated with drainage.	>2.10	0.49	0.38	
13	1306	Masonry		Culvert/drain	Structure made of red bricks and limestone slabs bonded with pale yellowish brown sandy mortar. Probably contemporary with wall footing.	>0.37	0.37	>0.18	
13	1307	Layer		Sub-base for 1305	Pale brownish yellow sandy mortar with occasional charcoal flecks mixed with small fragments of building rubble.	>2.10	>0.50	0.09	
13	1308	Masonry		Wall	S wall of present day building made of red bricks bonded with various types of mortar, English bond.				
13	1309	Masonry		Wall footing	Wall footing of former treadmill building made of limestone blocks and slabs in regular courses bonded with orangey yellow sandy mortar.	>0.96	>0.37	>0.60	
13	1310	Fill	1311	Construction cut backfill	Mid greyish brown sandy silt with occasional flecks of charcoal, building rubble (CBM, slates, stone fragments) and small lenses of blue clay	>0.96	>0.37	>0.55	MLC18
13	1311	Cut		Construction cut for 1309	Linear shape with E-W orientation, vertical sides. Not fully excavated.	>0.96	>0.37	>0.60	
13	1312	Layer		Dump/levelling deposit	Light to mid greyish brown sandy silt with common building rubble (fragments of CBM, stone, slate, mortar) and occasional flecks of	>0.96	>0.12	0.18	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					charcoal.				
13	1313	Layer		Surface	Mid greyish brown sandy silt mixed with mortar and containing frequent fragments of crushed building rubble. Not excavated.	>0.96	>0.12	0.12	
13	1314	Layer		Dump/levelling deposit	Mid greyish yellow sandy silt with occasional small fragments of mortar, CBM and stone, occasional flecks of charcoal. Not excavated.	>0.96	>0.12	>0.10	
14	1400	Layer		Tarmac surface				0.20	
14	1401	Layer		Make-up/Levelling	Modern concrete bedding deposit (chipping) for tarmac surface.				
14	1402	Fill	1403	Fill of pipe cut	Mid brownish grey sandy silt with occasional building rubble, flecks of charcoal and leas pipe towards the base.	>2.65	1.54	0.45	
14	1403	Cut		Construction cut for pipe	Linear shape with E-W orientation, vertical sides. Not fully excavated.	>2.65	1.54	0.45	
14	1404	Fill?	1407?	Construction cut backfill?	Cemented layer of light brownish grey sandy silt with fragments of stone and flecks of mortar .	0.52	0.95	0.22	
14	1405	VOID							
14	1406	Masonry	1407	Wall	E-W wall of present day building made of red bricks bonded with sandy cement mortar (English bond).	>10.00	>0.26	>5.00	
14	1407	Cut		Construction cut for 1406	E-W orientation, only partially visible. Not fully excavated.	>10.00	>2.10	>1.20	
14	1408	Masonry	1410	Surface	External paving consisting of pennant sandstone bonded with sandy mortar.	>2.65	>0.54	0.12	
14	1409	Fill	1410	Surface bedding	Light orangey grey cement mortar and sand with small stone fragments.	>2.65	>0.54	0.10	
14	1410	Cut		Construction cut for 1408	Linear shape with E-W orientation	>2.65	>0.54	0.10	
14	1411	Layer			Mid to dark brownish grey sandy silt with occasional large stones and flecks of charcoal.	>2.65	0.52	0.24	
14	1412	Layer		Rubble deposit	Mid to light brownish grey sandy silt with occasional stones and flecks of mortar.	>2.65	0.78	0.37	MLC18
14	1413	Layer		Rubble deposit	Mid to dark greyish brown sandy silt with common stones and charcoal flecks, rare fragments of animal bone and rare fragments of pottery.	>0.50	2.08	0.32	C19

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
14	1414	Fill	1416	Construction cut backfill		N/K	N/K	N/K	
14	1415	Masonry	1416	Wall	Treadmill wall made of bricks and roughly squared stones in irregular courses, bonded with sandy cement mortar	0.89	0.81	0.33	
14	1416	Cut		Construction cut for 1415		N/K	N/K	N/K	
14	1417	Layer		Rubble deposit	Mid to dark greyish brown sandy silt with common stones, rare fragments of animal bone and rare fragments of pottery.	>0.50	1.75	0.11	PMED
14	1418	Layer		Previous surface footing?	Dark to mid greyish brown cemented sandy silt with stones and flecks of charcoal.	0.50	0.21	0.18	
14	1419	Layer			Dark greyish brown sandy silt with occasional flecks of stone. Not fully excavated.	>2.10	>0.50	0.12	
15	1500	Layer		Modern surface	Modern concrete surface of sports hall	15.00	4.00	0.28	
15	1501	Layer		Modern surface	Modern concrete surface	15.00	4.00	0.18	
15	1502	Layer		Rubble deposit	Mixed stone, brick and building rubble levelling layer	10.50	1.30	0.60	
15	1503	Wall		Modern structure	Modern brick inspection chamber with concrete footing	N/K	1.60	0.90	
15	1504	Cut		Irregular pit	Modern irregular pit	>1.85	>0.4	>0.9	
15	1505	Fill	1504	Disuse backfill	Mid brownish grey silty sand backfill	>1.85	>0.4	>0.9	
15	1506	Layer		Soil accumulation	Mid brownish grey silty sand deposit accumulated over 1st phase keep wall.	N/K	2.00	0.50	MC16-C18
15	1507	Cut		Sub-circular pit	Large sub-circular, slightly irregular pit, possibly for waste mortar	N/K	1.64	0.72	
15	1508	Fill	1507	Disuse/use fill	Mid brownish yellow silty sandy gravel and limestone. Possibly waste mortar	N/K	1.64	0.72	
15	1509	Cut		Sub-circular pit	Pit associated with construction/destruction of nearby structures	N/K	1.74	0.68	
15	1510	Fill	1509	Disuse/use fill	Light brownish yellow gritty silty sand, possibly derived from waste mortar	N/K	0.81	0.05	
15	1511	Fill	1509	Disuse/use fill	Mid brownish grey gritty silty sand. Tip deposit including rubble debris.	N/K	1.51	0.11	
15	1512	Fill	1509	Disuse/use fill	Mid greyish brown silty sand, possibly demolition material from a nearby structure	N/K	1.72	0.39	
15	1513	Fill	1532	Deliberate backfill	Black friable clayey silt with charcoal and	5.50	>2.4	0.70	LC18-C19

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					mortar fragments				
15	1514	Cut		Construction cut	Construction cut for E-W wall associated with 1780s Blackburn's prison	>1.8	>1.8	>0.95	
15	1515	Wall		E-W wall	E-W wall of hewn limestone blocks associated with 1780s Blackburn's prison	>1.8	1.20	>0.41	
15	1516	Fill	1514	Construction cut backfill	Mid brownish yellow silty sandy gravel	>1.8	>1.8	>0.95	
15	1517	Cut		Robber cut	Robber cut for the removal of wall 1515	>1.8	2.66	0.92	
15	1518	Fill	1517	Disuse fill	Dark greyish brown sandy silt fill of robber cut	>1.0	1.29	0.44	
15	1519	Fill	1517	Disuse fill	Mid yellowish brown silty sand and rubble disuse fill of robber cut	>1.8	1.20	0.90	MLC18
15	1520	Layer		Reworked soil	Dark greyish brown sandy silt layer with limestone rubble and charcoal, possibly associated with the robbing out of Blackburn's prison	>15	>5	1.10	
15	1521	Cut		Pit	Concave pit identified in section, possibly associated with the robbing out of Blackburn's prison	N/K	3.00	0.60	
15	1522	Fill	1521	Disuse fill	Mid greyish yellow silty sand and rubble	N/K	2.60	0.30	
15	1523	Fill	1521	Disuse fill	Dark brownish grey silty clay and rubble	N/K	0.80	0.06	
15	1524	Fill	1521	Disuse fill	Dump of limestone based concrete in top of pit	N/K	0.80	0.55	
15	1525	Cut		Pit	Large modern pit identified in section	N/K	2.05	1.10	
15	1526	Fill	1525	Disuse fill	Mid brownish grey silty clay and rubble	N/K	2.05	0.80	
15	1527	Fill	1525	Disuse fill	Mid greyish brown silty sand and brick rubble	N/K	2.05	0.40	
15	1528	Cut		Subcircular pit	Subcircular pit in central area of trench, possibly related to demolition/levelling activity	1.69	>0.95	0.61	
15	1529	Fill	1528	Use/disuse fill	Greyish yellow sandy silty rubble, possibly associated with nearby demolition activity	1.38	>0.95	0.36	
15	1530	Fill	1528	Use/disuse fill	Greyish brown sandy silt with frequent stone, mortar and cbm rubble	1.69	0.95	0.32	
15	1531	Fill	1532	Deliberate backfill	Dark greyish brown sandy silty rubble, possibly associated with demolition or levelling activity	>1.2	>1.8	>0.5	MLC18
15	1532	Cut		Hypothetical cut	Nominal cut for huge pit containing two post med deposits. May simply be two layers within med/post-med privy area	>5.7	2.00	>0.94	
15	1533	Wall/F		Wall/Floor	Small wall/floor	>0.7	>0.65	0.28	C18

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
		loor			remnant of brick and flagstones abutting 'Privy Wall' in central area of trench, probably a post-med addition to medieval building	5			
15	1534	Wall		Wall	NW-SE wall of limestone and grey sandstone blocks with rubble core, similar construction to earliest phase of keep wall. Probably a medieval addition to the keep. Appears to have been repaired with brick and other materials in late-med/early post-med period.	>3.2	>2.15	>1.5	C18-C19
15	1535	Cut		Pit	Pit of unknown purpose identified in section	N/K	1.70	0.40	
15	1536	Fill	1535	Backfill	Mid greyish brown silty sand with rubble inclusions	N/K	1.70	0.40	
15	1537	Cut		Construction cut	Construction cut for E-W wall associated with 1780s Blackburn's prison	>2.5	1.10	>1	
15	1538	Wall		Wall	E-W wall associated with 1780s Blackburn's prison	>4	>0.9	>1.2	
15	1539	Fill	1538	Construction cut backfill	Mid greyish brown silty sand with frequent brick and limestone	>2	1.10	<0.55	
15	1540	Fill	1538	Construction cut backfill	Mid greyish brown silty sand with limestone gravel and cbm fragments	>2	1.06	>0.4	
15	1541	Wall		Keep wall	Keep wall formed of shaped limestone block outer face with rubble core. Earliest phase of keep, 1112 AD	>2.8	>2.51	>0.71	
15	1542	Cut		Robber cut	Large demolition cut for removal of stone from earliest phase of keep wall.	N/K	>0.8	>0.12	
15	1543	Fill	1542	Disuse fill	Disuse fill of robber cut of keep wall	N/K	>0.8	>0.12	
15	1544	Fill	1517	Disuse fill	Disuse fill of robber cut of Blackburn's prison wall	N/K	0.75	0.11	
15	1545	Cut		Grave	Modern execution burial	>1.3	1.08	>1.64	
15	1546	Fill	1545	Grave backfill	Backfill of modern grave	>1.3	1.08	>1.64	
15	1547	Cut		Grave	Modern execution burial	1.35	0.40	N/K	
15	1548	Fill	1547	Grave backfill	Backfill of modern grave	1.35	0.40	N/K	
15	1549	Wall		Wall	NW-SE aligned wall built of limestone blocks, butting 2nd phase medieval keep wall. Later medieval addition to earlier medieval keep	0.81	0.60	0.85	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
15	1550	Wall		Wall	Possible flue or oven formed of irregular limestone blocks and bricks, butting 2nd phase medieval keep wall and later medieval structure	1.80	0.83	0.88	EC18
15	1551	Wall		Buttress	Brick built buttress over stone wall, probably later addition to support structure built off 12th century keep.	1.40	0.90	0.90	C19
15	1552	Culvert		Culvert	Brick built culvert aligned E-W, associated with 1780s Blackburn's prison	>1.8	>0.63	>0.4	EMC19
15	1553	Cut		Grave	Modern execution burial	>0.6	1.10	1.39	
15	1554	Fill	1553	Grave backfill	Backfill of modern grave	>0.6	1.10	1.39	C13-C18
15	1555	Cut		Pit	Cut of modern pit, partly truncating Blackburn's prison wall. Presumably related to 20th century development of site as sports hall.	>1.4	1.10	1.35	
15	1556	Fill	1555	Deliberate backfill	Large brick and concrete rubble within a brown silty sand matrix	N/K	1.60	1.00	
15	1557	Wall		Wall	Small remnant of brick and limestone wall in upper E section of trench, possibly part of later prison layout	>0.27	0.54	0.50	
15	1558	Cut		Construction cut	Construction cut for oven/flue at south end of trench	1.80	0.83	0.10	
15	1559	Deposit		Soil accumulation	Accumulation of yellowish brown sandy silt over late medieval wall	N/K	2.70	<1.1	
15	1560	Layer		Levelling layer	Brick and stone rubble, crushed to small fragments, applied as levelling layer. Presumably related to early 20th century development of site.	>1.5	>1.4	<0.5	
15	1561	Layer		Demolition layer	Layer of greyish yellow sandy rubble and cbm, presumably post-med/modern demolition material	0.96	>0.7	0.52	
15	1562	Cut		Pit	Pit of unknown purpose identified in section of trench	N/K	0.56	0.40	
15	1563	Fill	1562	Deliberate backfill	Light grey mortar and gravel	N/K	0.56	0.40	
15	1564	Layer		Demolition layer	Mid brownish yellow silty sand and brick rubble	N/K	>1.3	0.48	
15	1565	Cut		Pit	Late med/early modern irregular pit of unknown purpose	N/K	1.54	0.92	
15	1566	Fill	1565	Deliberate backfill	Blackish brown gravelly silty sand	N/K	1.54	0.92	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
15	1567	Layer		Disuse layer	Dark brownish black clayey silty sand with charcoal and limestone rubble	>3.0	>1.8	>0.85	LC17-EC18
15	1568	Cut		Pit	Modern pit of unknown purpose	N/K	1.50	0.40	
15	1569	Fill	1568	Deliberate backfill	Mid greyish yellow silty sand and rubble	N/K	1.50	0.40	
15	1570	Wall		Keep Wall	External western face of 2nd phase keep wall, constructed of moulded limestone blocks circa 1336. Built on top of earlier phase of keep wall.	>1.3 5	>0.44	>1.45	
15	1571	Layer		Layer	Post med yellow black silty sand accumulation layer	N/K	1.70	0.26	
15	1572	Layer		Layer	Post med greyish brown silty sand accumulation layer	N/K	1.50	0.26	
15	1573	Layer		Layer	Dark greyish brown silty sand and rubble	N/K	2.00	0.26	
15	1574	Layer		Layer	Mid greyish black silty sand and rubble	N/K	2.00	0.20	MC16-C19
15	1575	Cut		Construction cut	Construction cut for brick culvert associated with 1780s Blackburn's prison	>1.8 3	1.46	0.38	
15	1576	Fill	1575	Construction cut backfill	Dark greyish brown sandy silt	>1.8 3	1.46	0.38	
15	1577	Layer		Layer	Greyish brown clayey sandy silt, possibly buried garden soil	>1.9 5	1.23	>0.6	C17-C18
15	1578	Layer		Demolition/made ground	Reddish grey sandy silty rubble	1.21	>4.00	0.47	
15	1579	Cut		Pit	Cut of large rubble filled modern pit at N end of trench	1.70	>3.6	0.88	
15	1580	Fill	1579	Deliberate backfill	Light greyish brown building rubble, possibly levelling deposit	>1.7	>3.6	0.88	
15	1581	Layer		Demolition/made ground	Yellowish brown sandy silty rubble	1.19	N/K	0.28	
15	1582	Cut		Construction cut	Construction cut for Blackburn's prison wall (N side)	>1.9	0.18	>0.25	
15	1583	Fill	1582	Construction cut backfill	Backfill of construction cut for Blackburn's prison wall (N side)	>1.9	0.18	>0.25	
15	1584	Fill	1537	Construction cut backfill	Backfill of construction cut for Blackburn's prison wall (S side)	N/K	0.05	0.20	
15	1585	Wall		Wall	Later medieval wall formed of ashlar blocks, abutting later medieval structure built onto keep, and beneath brick buttress	>1.8	>0.14	>0.73	
15	1586	Coffin	1553	Coffin	Wooden plank coffin of modern execution burial	>0.4 8	0.53	0.35	
15	1587	Skeleton	1553	Skeleton	Skeleton of modern execution burial	>0.5	0.40	0.15	
15	1588	Cut		Construction cut	Construction cut for modern brick-built inspection chamber	N/K	1.70	0.90	
15	1589	Fill	1588	Construction cut backfill	Dark greyish black silty sand and rubble	N/K	1.70	0.90	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
15	1590	Wall		Wall	Medieval wall of ashlar blocks abutted by later medieval wall and covered by later medieval/early post-med floor remnant	>0.65	>0.26	>0.76	
15	1591	Cut		Robber cut	Robber cut for recovery of stone associated with medieval and late medieval walls at S end of trench	>0.3	>1.8	>0.85	
15	1592	Layer		Ground surface	Yellowish brown gritty silty sand, possibly level of medieval floor surface	>0.4	>0.5	>0.08	
15	1593	Cut		Construction cut	Construction cut for 2nd phase of keep wall	>1.0	>0.05	>0.05	
15	1594	Cut		Construction cut	Construction cut for med/post med wall	>0.29	0.97	0.48	
15	1595	Fill	1594	Construction cut backfill	Greyish brown sandy silt	>0.27	0.97	0.48	
15	1596	Layer		Layer	Greyish brown sandy silt with charcoal, overlying medieval wall	N/K	0.50	0.40	
15	1597	Wall		Wall	Limestone slab - built remnant of early medieval wall in N end of trench beneath later medieval wall	>1.1	>1	>0.5	
16	1600	Layer		Modern surface	Modern concrete surface and associated levelling/make-up deposits for former workshop building	>12	>4.5	0.54	
16	1601	Layer		Modern surface	Modern concrete surface and associated levelling/make-up deposits for previous modern building	>12	>4.5	0.32 - 0.56	
16	1602	Void							
16	1603	Deposit		Possible ditch fill	Dark to mid blackish brown sandy silty clay with occasional charcoal and cbm	>2.28	>1	0.84	
16	1604	Void							
16	1605	Fill	1606	Pit backfill	Dark to mid blackish grey brown sandy clay with charcoal	1.30	>0.55	0.50	
16	1606	Cut		Pit	Cut of modern pit, truncated by 1800's yard wall 1607 of Blackburn's prison.	1.30	>0.55	0.50	
16	1607	Wall		Wall	N/S aligned brick buttressed wall foundation, part of Blackburn's prison, constructed by the mid-1800's	>12	0.50	0.88	
16	1608	Deposit		Possible ditch fill	Mid reddish grey brown clay with charcoal cbm	>9.14	>1.7	0.35 - 0.4	
16	1609	Deposit		Possible ditch fill	Mid to light reddish brown clay with charcoal throughout and occasional oyster	>2.86	>0.9	0.60	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
					shell, cbm, potsherd				
16	1610	Deposit		Possible ditch fill	Mid to light greyish brown sandy clay	>0.7	>0.8	>0.1	C14-C16
16	1611	Deposit		Possible ditch fill	Dark to mid blackish brown sandy silty clay with occasional charcoal and cbm	5.36	>1.7	0.94	
16	1612	Fill	1621	Backfill of culvert construction and/or robber cut	Continuation of fill 1618. Light yellowish pinkish brown sandy clay	0.35		0.10	
16	1613	Wall		Wall	E/W aligned brick wall keyed into wall 1607 constructed by the mid-1800's	>1.7	0.50	0.54	
16	1614	Fill	1615	Pit backfill	Dark brown grey stony sandy clay	>1.0 2	>1.7	0.66	
16	1615	Cut		Pit	Modern pit truncating deposits at eastern end of the trench	>1.0 2	>1.7	0.66	
16	1616	Fill	1621	Backfill of culvert construction and/or robber cut	Light pinkish brown clay	>0.6	>1.7	0.38	
16	1617	Fill	1621	Backfill of culvert construction and/or robber cut	Dark brownish grey stony sandy clay	>1.6 6	>1.7	0.2 - 0.3	
16	1618	Fill	1621	Backfill of culvert construction and/or robber cut	Light yellowish pinkish brown sandy clay	>1.9 6	>1.7	0.3 - 0.75	
16	1619	Fill	1621	Backfill of culvert construction and/or robber cut	Mid brownish grey sandy clay with charcoal	>1.1 2	>0.5	0.12	
16	1620	Fill	1621	Backfill of culvert construction and/or robber cut	Mid bluish grey silty clay with occasional charcoal	>0.7 8	>0.5	0.20	
16	1621	Cut		Construction and/or robber cut associated with culvert 1625	Steep linear cut containing numerous backfill deposits	>3.2	>1.7	1.54	
16	1622	Deposit		Possible ditch fill	Mid to dark greyish blue clay	>0.5	>1.7	>0.25	
16	1623	Fill	1621	Backfill of culvert construction and/or robber cut	Mid grey silty sandy clay with charcoal identified in east-facing section. Similar to/continuation of fill 1619	>2	>1	0.26	
16	1624	Fill	1621	Backfill of culvert construction and/or robber cut	Consisting mostly of brick, the backfill is possibly derived from robbing/ disturbance to the culvert/drainage system	>0.9	0.30	>0.1	
16	1625	Culvert		Culvert	Brick built culvert aligned E-W, associated with 1780s Blackburn's prison	>1.3 5	>0.65	>0.51	
16	1626	Fill		Backfill of	Mid grey brown sandy	>2	>1.05	0.05 -	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
				culvert construction and/or robber cut	clay with charcoal identified in east-facing section.			0.26	
16	1627	Cut		Construction cut	Construction cut for E/W aligned brick wall foundation 1613	>1.7	0.50	0.10	
16	1628	Deposit		Possible ditch fill	Mid bluish grey brown clayey stone rubble. The stone mostly consists of partially dressed blocks up to 0.35m in length	>2.2 8	>0.8	0.47	
16	1629	Deposit		Possible ditch fill	Mid brownish blue clay	>0.6 4	>0.8	>0.5	

APPENDIX B: THE FINDS

Context	Material	Date	Details*	Ct.	Wt.(g)	Spot-date
105	iron	-	nail	1		C19
	iron	-	sheet	1		
	pottery	Modern	yellow	35	3757	
109	ctp	Pmed	stem	1	3	MLC18
	pottery	Medieval	brs gl	1	12	
	pottery	Medieval	malv ox	3	310	
	pottery	Pmed	cist	1	56	
	pottery	Pmed	creamw	2	46	
112	ctp	Pmed	bowls	3	26	MLC18
	pottery	Modern	lateengstonw	1	3	
	pottery	Pmed	creamw	2	11	
	pottery	Pmed	tge	1	28	
	pottery	Pmed	westw	1	60	
114	ctp	Pmed	stems	3	14	LC17-C18
	cu al	-	nail	1		
	glass	Pmed	bottle	1	8	
114	pottery	Pmed	motbr gl	1	27	
	pottery	Pmed				
	pottery	Pmed				
115	cbm	Roman	brick	1	45	C18
	glass	Pmed	bottle	3	174	
	iron	-	nail	2		
	pottery	Medieval	malv ox	2	41	
	pottery	Medieval	malvug	1	3	
	pottery	Pmed	AK gre	1	21	
	pottery	Pmed	engsto	1	2	
	pottery	Pmed	gre	1	6	
	pottery	Pmed	tge	1	6	
	pottery	Pmed	wsgst	1	23	
117	glass	Pmed	bottle	2	447	LC17-C18
	pottery	Pmed	gre	3	360	
	pottery	Pmed	yel sw	1	22	
202	cu al	Modern	wire frags (c. 500)	-	62	C19
	glass	Modern	bottle	1		
	pottery	Pmed	chi porc	1	10	
	pottery	Pmed	creamw	1	2	
	pottery	Pmed	wsgst	1	14	
205	ctp	Pmed	stem	1	1	C18
	glass	Pmed	bottle	1	89	
	pottery	Pmed	creamw	4	31	
	pottery	Pmed	gre	4	358	
	pottery	Pmed	wsgst	1	10	
	pottery	Pmed	yel sw	5	165	
207	pottery	Roman	svw ox	1	7	RB
208	metallurg res	-	Indet. fe	2	129	RB
	metallurg res	-	hearth/furnace lin	1	9	
	pottery	Roman	svw ox	2	9	
	pottery	Roman	whc	1	5	
210	cbm	Roman	flue t	1	131	LC1-C2
	cbm	Roman	flue t; teg	1	45	
	pottery	Roman	glwsm	1	19	
211	pottery	Roman	bbim	1	9	C3-C4
	pottery	Roman	svw ox	1	2	
421	worked antler	-	handle (Ra.1)	1	18	RB/AS/MED
425	ctp	Pmed	stem	1	4	PMED
	pottery	Medieval	malv ox	2	50	
426	ctp	Pmed		2	3	C17-C18
	pottery	Pmed	AK gre	1	28	

Context	Material	Date	Details*	Ct.	Wt.(g)	Spot-date
504	cbm	Pmed	tile	1	4	LC18-EC19
	ctp	Pmed	stem	2	7	
	glass	Pmed	bottle	1	113	
	pottery	Pmed/modern	fp	1	11	
606	iron	-	nail	1	-	-
611	pottery	Pmed	yel sw	1	43	C18
612	pottery	Modern	fp	1	106	C19-C20
617	cbm	Pmed	brick	1	-	
619	cbm	Pmed	brick	1	-	
628	ctp	Pmed	stem	2	6	MLC18
	pottery	Pmed	AK gre	1	4	
	pottery	Pmed	creamw	1	3	
	pottery	Pmed	motbr gl	1	4	
	stone	Roman	tesserae	2	37	
628	pottery	Pmed	creamw	2	11	MLC18
696	iron	-	nail	1	-	-
902	ctp	Pmed	stem	1	1	C14-C15;C18
	pottery	Medieval	malv ox	13	194	
	pottery	Medieval	medqg	4	142	
	pottery	Medieval	mine	2	55	
	pottery	Medieval	worcgl	1	8	
	pottery	Pmed	AK gre	2	98	
903	cbm	medieval	malv rt	1	23	MLC17
	ctp	Pmed	bowls/stems	12	77	
	pottery	medieval	malv ox	2	411	
914	cbm	medieval	mine rt	1	110	C14+
	pottery	medieval	brs gl	3	63	
	pottery	medieval	malvg	1	44	
	pottery	medieval	malvug	1	2	
	pottery	medieval	mine	1	19	
923	ctp	Pmed	stem	1	5	pmed
	iron	-	obj	2	-	
926	cbm	medieval	floor t	2	133	C14-C15
	cbm	medieval	malv ft	3	526	
	cbm	medieval	malv rt	4	96	
	cbm	medieval	mine rt	1	44	
	cbm	Roman	teg	1	207	
	iron	-	nail	2	-	
	plaster	-	-	1	21	
	pottery	medieval	brs gl	3	82	
	pottery	medieval	cots	1	47	
	pottery	medieval	malv ox	5	285	
	pottery	medieval	malvug	2	37	
	pottery	medieval	saint	1	13	
	pottery	medieval	worcgl	1	26	
stone	-	roof tile	1	186		
928	pottery	medieval	malvg	1	13	C13-C14
	pottery	medieval	malvug	1	39	
931	iron	-	nail	1	-	C13-C14
	pottery	medieval	malv ox	1	8	
	pottery	medieval	malvug	5	74	
938	pottery	Roman	whitesl	1	7	MC17-C18
	ctp	Pmed	stem	1	7	
938	glass	Pmed	bottle	1	22	MC17-C18
	pottery	medieval	malv ox	1	56	
	pottery	Pmed	gre	1	12	
	pottery	Pmed	gre	1	12	
950	iron	-	nail	1	-	C13
	pottery	medieval	malvug	1	12	
	pottery	medieval	worcgl	1	17	
1015	pottery	Roman	svw ox	1	6	C17+
	pottery	medieval	malv ox	1	61	
1015	pottery	Pmed	bl glaz	1	89	C17+
	pottery	Pmed	bl glaz	1	89	

Context	Material	Date	Details*	Ct.	Wt.(g)	Spot-date
1018	cbm	medieval	floortile	1	148	C13-C15
	pottery	medieval	malv ox	5	32	
	pottery	medieval	mine	1	9	
1020	cbm	Roman	brick	2	192	LC13-C14; MC16-C18
	pottery	medieval	brs gl	11	175	
	pottery	medieval	lacock nh	1	10	
	pottery	medieval	lmjf	1	23	
	pottery	medieval	malv ox	18	318	
	pottery	medieval	malvg	1	48	
	pottery	medieval	medqg	3	43	
	pottery	medieval	mine	2	95	
	pottery	medieval	worcgl	6	229	
	pottery worked bone	Pmed medieval	gre die (Ra. 2)	1 1	66 -	
1021	cbm	Roman	brick	2	736	LC13-C15
	cbm	Roman	imbrex	1	67	
	cbm	Roman	teg	1	55	
	iron	-	obj.	1	-	
	pottery	medieval	brs gl	23	434	
	pottery	medieval	lmjf	2	42	
	pottery	medieval	malv ox	73	2693	
	pottery	medieval	malvug	1	36	
	pottery	medieval	medqg	2	30	
	pottery	medieval	mine	3	190	
	pottery	medieval	worcgl	1	12	
1022	pottery	Pmed	motbr gl	1	6	C18
1110	mortar	-	-	4	58	-
	slate	modern	stylus	1	-	C19
1138	stone	medieval	mortar	1	-	med
1140	cu al	-	frags	3	-	C14-C15
	cu al	-	object	1	-	
	cu al	medieval	buckle	1	-	
	pottery	medieval	brs gl	9	176	
	pottery	medieval	lmjf	3	238	
	pottery	medieval	malv ox	79	4302	
	pottery	medieval	malvg	1	4	
	pottery	medieval	medqg	5	592	
	pottery	medieval	mine	60	2194	
	pottery	Roman	gw	1	5	
1143	cbm	medieval	rt	1	35	C14-eC15
	pottery	medieval	brs gl	4	47	
	pottery	medieval	lmjf	3	141	
	pottery	medieval	malv ox	49	1608	
	pottery	medieval	mine	3	126	
1149	pottery	medieval	cots	1	15	-
1150	Worked stone	Roman	Mortar	1	-	-
1152	jet/shale	medieval?	bead	1	-	LC14-C15
	metallurg res	-	Indet. fe slag	1	649	
	pottery	medieval	lmjf	20	461	
	pottery	medieval	malv ox	117	3044	
	pottery	medieval	mine	35	1019	
	pottery stone	Roman medieval	svw ox schist whetstone	1 1	120 -	
1154	metallurg res			1	38	C12-C13
	pottery	medieval	cots	3	42	
	pottery	medieval	malvug	9	49	
	pottery	Roman	dor bb1	1	3	
	pottery	Roman	lgf sa	1	8	
	pottery	Roman	svw ox	2	36	
1160	cbm	Roman	misc	2	53	MLC4
	pottery	Roman	gw mic	1	18	
	pottery	Roman	oxfrs	1	5	
	pottery	Roman	svw ox	2	32	
	pottery	Roman				

Context	Material	Date	Details*	Ct.	Wt.(g)	Spot-date
1160 <1>	pottery	medieval	dor bb1, whitesl,	3	53	C11-C13
	pottery	Roman	loc cc	1	5	
	cbm	Roman	cots	20	40	
	metallurg res			-	32	
	Iron		nails, fragments	5		
	Glass	Roman	vessel	1	1	
1162	cbm	Roman		4	207	C14-C15
	cbm	Roman	misc	2	60	
	cu al	medieval	wire pins	5		
	pottery	medieval	cots	2	28	
	pottery	medieval	malv ox	1	6	
	pottery	medieval	mine	6	497	
	pottery	medieval	worcgl	1	28	
	stone			0	243	
1163	pottery	medieval	lmjf	1	14	C12-C13
	pottery	medieval	malv ox	4	120	
	pottery	medieval	mine	6	201	
	pottery	medieval	saint	1	3	
1163 <3>	pottery	medieval	mine; malv ox	9	137	C13-C15
	cbm	Roman		10	4	
	Pb		sheet frag.	1	-	
1164	pb		sheet	1	74	C14-C15
	pottery	medieval	lmjf	2	81	
	pottery	medieval	malv ox	10	268	
	pottery	medieval	medqg	1	15	
	pottery	medieval	mine	21	534	
1164 <4>	Worked bone	medieval?	Bead	1	-	Med?
1215	cbm	Pmed	brick	1	-	C18-C19
1219	pb al	Pmed	disc	1		LC17-C18
	pottery	Pmed	gre	1	35	
1221	cbm	Pmed	brick	1	-	C18-C19
1310	pb al	Pmed	buckle	1		MLC18
	pottery	Pmed	creamw	2	4	
	pottery	Pmed	gre	4	168	
	pottery	Pmed	westw	1	19	
1412	ctp	Pmed	stem	1	5	MLC18
	glass	Pmed	bottle	1	22	
	pottery	Pmed	creamw	1	4	
1413	ctp	Pmed	stem	3	10	C19
	pottery	modern	refwh	3	18	
	pottery	modern	refwhflo	1	4	
	pottery	Pmed	motbr gl	6	43	
1417	ctp	Pmed		1	4	PMED
1506	pottery	medieval	worcgl	1	9	MC16-C18
	pottery	medieval	med li	11	272	
	pottery	medieval	malv ox	1	11	
	pottery	Pmed	AK gre	2	39	
1513	pottery	modern	refwh	1	13	LC18-C19
	pottery	Pmed	bl glaz	1	22	
	pottery	Pmed	gre	1	5	
	worked stone			1	448	
	glass	Pmed		1	590	
	slag			1	65	
	ctp	Pmed		1	4	
	Plaster	mod		1	450	
1519	pottery	Pmed	wsgst	1	22	MLC18
	pottery	Pmed	engsto	1	26	
	pottery	Pmed	creamw	1	5	

Context	Material	Date	Details*	Ct.	Wt.(g)	Spot-date
1531	pottery	Pmed	creamw	27	363	MLC18
	pottery	Pmed	wsgst	31	519	
	pottery	Pmed	motbr gl	5	197	
	pottery	Pmed	yel sw	7	539	
	pottery	Pmed	bl glaz	1	10	
	pottery	Pmed	gre	2	40	
	pottery	Pmed	ref bl glaz	1	52	
	ctp	Pmed		1	3	
	wood			13	78	
	cbm		tile	3	396	
	iron		objects	2	191	
1533	cbm	Pmed/mod	brick (8.5 x 4.25 x 2.25)	1	-	C18
1534	cbm	Pmed/mod	brick (8.5 x 4.25 x 2.5)	1	-	C18-C19
1549	pottery	Pmed	gre	1	131	
1550	cbm	Pmed/mod	brick (8.5 x 4.75 x 2.5)	1	-	eC18
1551	cbm	Pmed/mod	brick (8.5 x 4.5 x 3)	1	-	C19
1552	cbm	Pmed/mod	brick (8.5 x 4.25 x 2.25)	1	-	emC19
1554	plaster	med/Pmed		2	491	C13-C18
1567	pottery	Pmed	ssom	1	53	LC17-EC18
	pottery	Pmed	yel sw	5	144	
	pottery	Pmed	westw	1	14	
	pottery	Pmed	ndev	4	657	
	pottery	Pmed	frechen	1	201	
	pottery	Pmed	engsto	1	11	
	pottery	Pmed	gre	5	428	
	pottery	Pmed	sl gre	1	115	
	pottery	Pmed	motbr gl	4	164	
	glass	Pmed		3	315	
	ctp	Pmed		19	181	
mortar	Roman	<i>opus signinum.</i>	1	724		
1574	pottery	Pmed	AK gre	11	590	MC16-C19
	pottery	Pmed	gre	1	18	
1577	pottery	Pmed	ndev	1	246	C17-C18
	pottery	medieval	lmjf	1	62	
	pottery	medieval	malv ox	1	22	
	cbm		brick	2	224	
1584	Fe obj.	lid/cap		1	-	
1596	pottery	medieval	brs gl	1	9	
1608	cbm	Pmed	brick	2	18	
	ctp	Pmed		1	3	
	coal			1	13	
1609	pottery	Pmed	gre	1	122	
	cbm	Roman		3	138	
	ctp	Pmed		1	6	
1610	cbm	Late medieval	brick	1	22	C14-C16
1613	cbm	Pmed	Brick: 9" x 4¼" x 2¾"	2	6283	
			Brick: 9½" x 4½" x 2½"			
1618	cbm	Pmed	tile	1	43	
1619	cbm	Pmed		1	18	
			ctp			
	slate	Pmed		1	92	
1620	cbm	Roman		1	89	
1625	cbm	Pmed	Brick: 9" x 4½" x 2¼"	3	7527	
			Brick: 9" x 4½" x 2¼"			
			Brick: 9" x 4" x 2½"			

APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE

Plant macrofossil identifications

Context number				1160	1162	1163	1164
Feature number				-	-	-	-
Sample number (SS)				1	2	3	4
Flot volume (ml)				2	611	4	3
Sample volume processed (l)				10	10	10	10
Soil remaining (l)				10	10	10	10
Period				RB	Med	Med	Med
Plant macrofossil preservation				N/A	N/A	Moderate	Moderate
Habitat Code	Family	Species	Common Name				
D/P	Asteraceae	<i>Cirsium</i> Mill./ <i>Carduus</i> L.	Thistles			+	
HSW	Betulaceae	<i>Corylus avellana</i> L.	Hazelnut shells			+	
A/D	Boraginaceae	<i>Lithospermum arvense</i> L.	Field Gromwell			+	
D/P	Fabaceae	<i>Medicago</i> L./ <i>Trifolium</i> L.	Medicks/Clovers			+	
D/A/P		<i>Vicia</i> L./ <i>Lathyrus</i> L.	Vetches/Peas			+	
E	Poaceae	<i>Avena</i> L.	Oats grain			+++	
E		<i>Hordeum vulgare</i> L.	Barley grain			+	
E		<i>Triticum aestivum</i> L./ <i>Triticum turgidum</i> L./ <i>Triticum durum</i> Desf.	Free-threshing wheat			+++	
E		<i>Triticum durum</i> Desf.	Club wheat (tetraploid) rachis			+	

Charcoal identifications

Context number			1160	1162	1163	1164
Feature number			-	-	-	-
Sample number (SS)			1	2	3	4
Flot volume (ml)			2	611	4	3
Sample volume processed (l)			10	10	10	10
Soil remaining (l)			10	10	10	10
Period			RB	Med	Med	Med
Charcoal quantity >2mm			++++	+++++	++++	++++
Charcoal preservation			Good	Good	Good	Good
Family	Species	Common Name				
Betulaceae	<i>Alnus glutinosa</i> (L.) Gaertn./ <i>Corylus avellana</i> L.	Alder/Hazel			1	
Fagaceae	<i>Fagus sylvatica</i> L.	Beech				1
	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile Oak/ Pedunculate Oak	10	10	9	7
Rosaceae	<i>Crataegus monogyna</i> Jacq./ <i>Sorbus</i> L./ <i>Malus sylvestris</i> (L.) Mill.	Hawthorn/Rowans/ Crab apple				1
Salicaceae	<i>Salix</i> L./ <i>Populus</i> L.	Willows/Poplars				1
Total			10	10	10	10

Key

+ = 1–4 items; ++ = 5–20 items; +++ = 21–40 items; ++++ = 40–99 items ; +++++ = >100 items

A = arable weeds; D = opportunistic weeds; P = grassland species E = economic plant; HSW = hedgerow/woodland/scrub

r/w = roundwood (twigs)

RB = Romano-British

Med = medieval

APPENDIX D: LEVELS OF PRINCIPAL DEPOSITS AND STRUCTURES

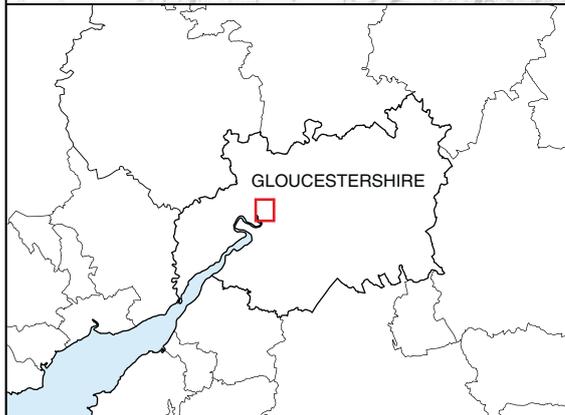
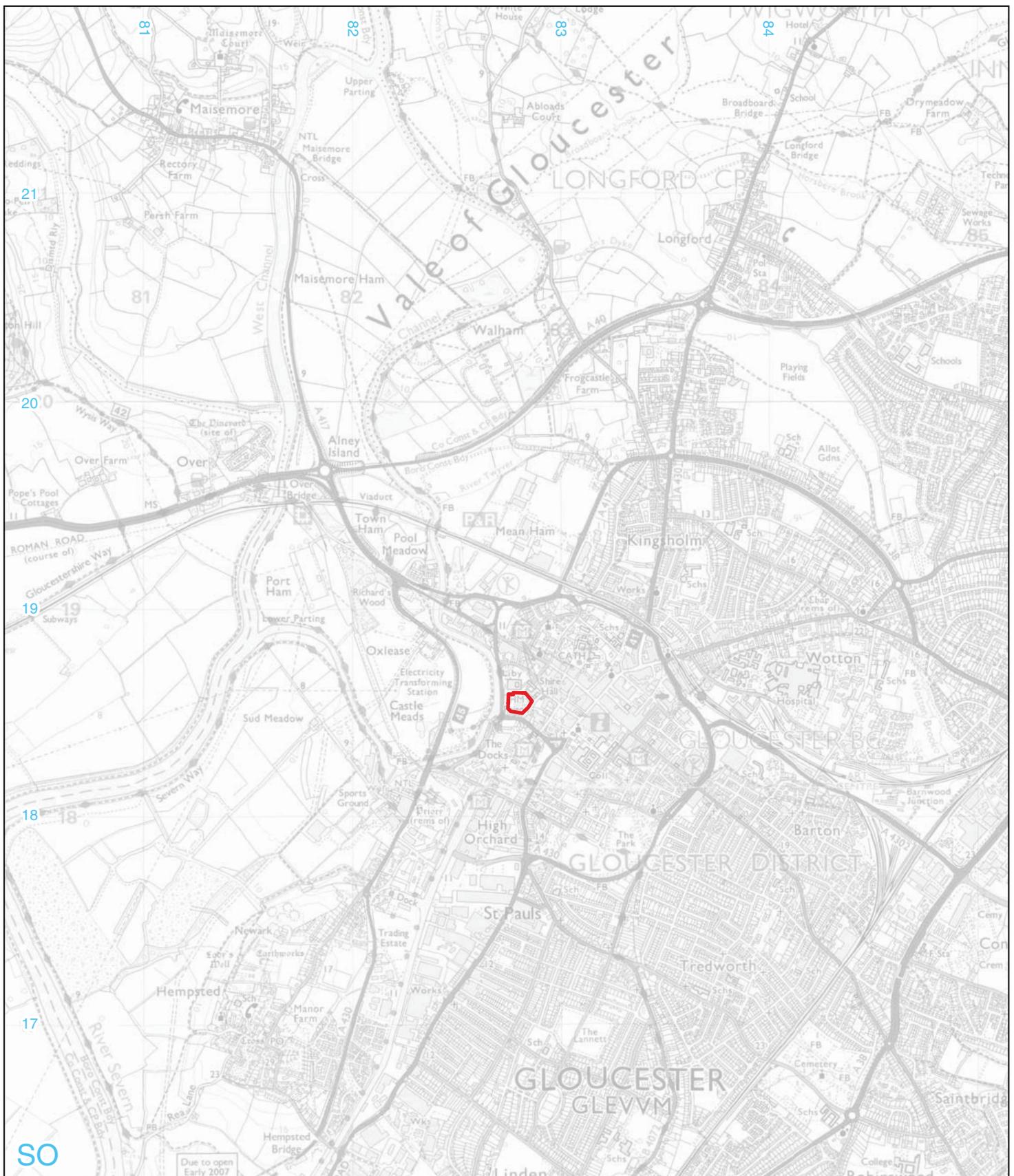
Levels are expressed as metres below current ground level and as metres Above Ordnance Datum (AOD).

Trench	Current ground level	Top of medieval structures	Top of medieval features/ deposits	Top of 18th-century prison structures	Limit of excavation
1	0.00 (11.06-12.12)	-	castle ditch fill 117 0.86-1.15 (10.2-10.97)	-	2.35 (8.71)
2	0.00 (12.01-12.03)	-	castle ditch fill 208 0.8 11.23	-	1.98 (10.05)
3	0.00 (10.89)	-	-	-	2.1 (8.79)
4	0.00 (10.63-10.66)	-	-	-	1.78 (8.87)
5	0.00 (11.07)	-	-	-	1.4 (9.67)
6	0.00 (11.08)	-	-	-	1.41 (9.67)
7	0.00 (10.34-10.45)	-	-	-	1.12 (9.28)
8	0.00 (10.59)	-	-	-	1.1 (9.49)
9	0.00 (11.16-11.38)	wall 944 1.86 (9.51)	?surface 915 1.59 (9.79)	wall 907 (S end) 0.34 (10.97)	2.05 (9.27)
10	0.00 (11.24-11.33)	wall 1023 (E extent) 0.52 (10.72)	deposit 1022 1.47 (9.86)	wall 1016 (W end) 0.41 (10.92)	2.43 (8.81)
11	0.00 (11.16-11.19)	wall 1110 0.42 (10.76)	deposit 1152 (SE extent) 1.06 (10.12)	wall 1104 (S end) 0.3 (10.95)	2.22 (8.96)
12	0.00 (10.97-10.96)	-	surface 1217 1.8 (9.16)	wall 1215 0.41 (10.46)	1.98 (8.89)
13	0.00 (10.16-10.54)	-	-	-	1.25 (9.28)
14	0.00 (10.53-10.55)	-	-	-	1.3 (9.23)
15	0.00 (11.64)	wall 1570 0.55 (11.09)	deposit 1592 2.54 (9.1)	-	2.65 (8.99)
16	0.00 (10.9)	-	deposit 1628 2.48 (8.42)	culvert 1625 0.53 (10.37)	3.6 (7.3)

Upper figures are depth below modern ground level; lower figures in parentheses are metres AOD.

APPENDIX E: OASIS REPORT FORM

PROJECT DETAILS		
Project Name	Former HMP Gloucester	
Short description	<p>An archaeological evaluation was undertaken by Cotswold Archaeology between October 2015 and June 2016 at the former HMP Gloucester, Gloucester, Gloucestershire. Fifteen trenches were excavated.</p> <p>The archaeological trenching identified significant deposits and structural remains associated with the medieval Gloucester Castle, including the walls of three sides of the substantial 12th-century keep, an associated forebuilding and part of one of the inner bailey walls. The large inner defensive castle ditch was also identified.</p> <p>The evaluation also encountered structures and deposits relating to the use of the site as the County Gaol in the later medieval/post-medieval period, including a number of burials. The extensive well-preserved remains of the late 18th-century prison were also identified, as were numerous features and deposits associated with the later development of the site throughout the 19th and 20th century, including the foundations of an early 19th-century treadmill, structures associated with exercise yards and the early 20th-century execution chamber. Four graves of executed prisoners were also encountered.</p>	
Project dates	12 October - 12 November 2015, 11 May - 6 June 2016 and 17 October – 28 October 2016	
Project type	Archaeological Evaluation	
Previous work	DBA (CA 2013) <i>Heritage Assessment</i> (Dieffenthaler, I. and Gujba, A. 2015) Watching Brief (Garrod, A.P. 1986)	
Future work	Unknown	
PROJECT LOCATION		
Site Location	Barrack Square, Gloucester, Gloucestershire	
Study area (M ² /ha)	1.8ha	
Site co-ordinates (8 Fig Grid Reference)	SO 8270 1850	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Brief originator	None	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Cliff Bateman	
Project Supervisor	Mark Brett	
MONUMENT TYPE	Medieval castle, post-medieval prison	
SIGNIFICANT FINDS		
PROJECT ARCHIVES		
	Intended final location of archive	Content
Physical	The Museum of Gloucester GLRCM 2015.31	Ceramics, animal bone, iron work, ceramic and stone building material
Paper	The Museum of Gloucester GLRCM 2015.31	Context sheets, matrices
Digital	The Museum of Gloucester GLRCM 2015.31	Database, digital photos
BIBLIOGRAPHY		
CA (Cotswold Archaeology) 2016 <i>HMP Gloucester, Gloucester; Archaeological Evaluation</i> . CA typescript report 15811		



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PROJECT TITLE

**Former HMP Gloucester, Gloucester
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FIGURE TITLE

Site location plan



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DATE 09/06/2016
SCALE@A4 1:25,000

FIGURE NO.
1



- site boundary
- evaluation trench

- Phased structural deposits
- medieval
 - medieval-early post-medieval
 - grave
 - C18th
 - C19th
 - C20th
 - modern
 - unphased



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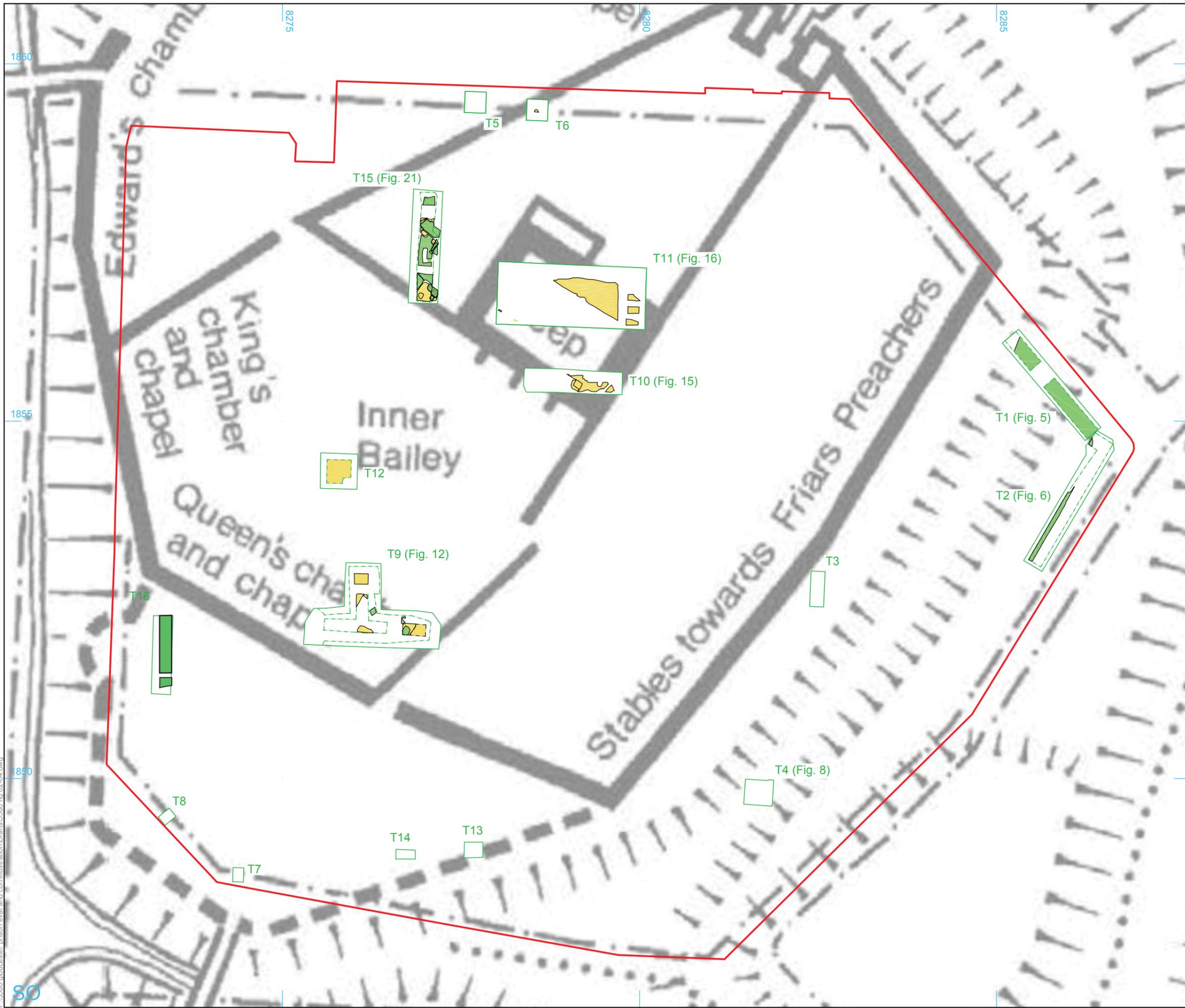
PROJECT TITLE
Former HMP Gloucester, Gloucester, Gloucestershire

FIGURE TITLE
Trench Location Plan, showing key archaeological features

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CHECKED BY	LM	DATE	09/06/2016	2
APPROVED BY	CMB	SCALE@A3	1:500	

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SO



- site boundary
 - evaluation trench
- phased structural deposits
- medieval
 - medieval-early post-medieval



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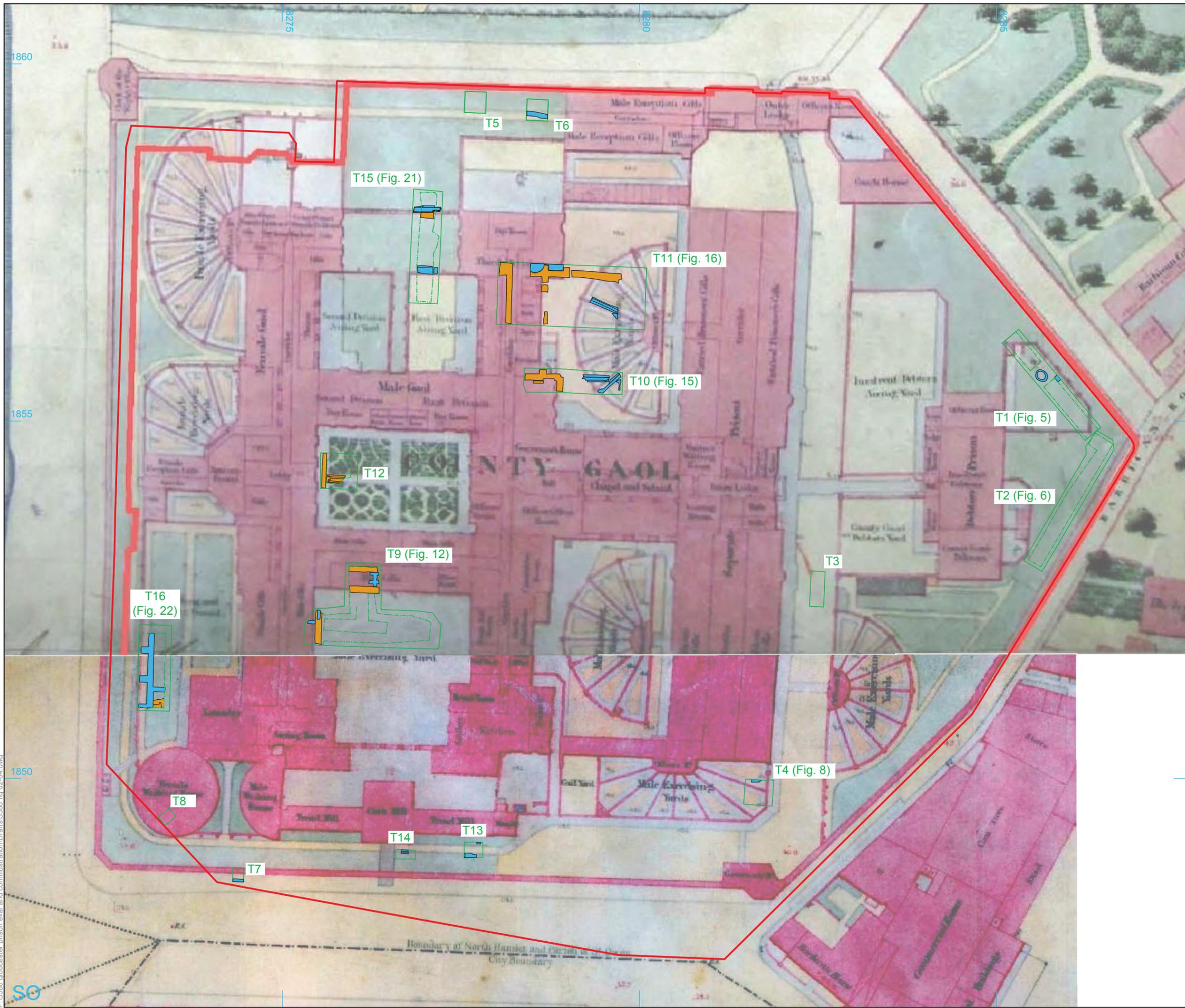
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Plan of identified medieval remains in relation to postulated layout of Gloucester Castle (after Hurst 1984)

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CHECKED BY	LM	DATE	09/06/2016	3
APPROVED BY	CMB	SCALE@A3	1:500	

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SO



- site boundary
- evaluation trench

- phased structural deposits
- C18th
 - C19th



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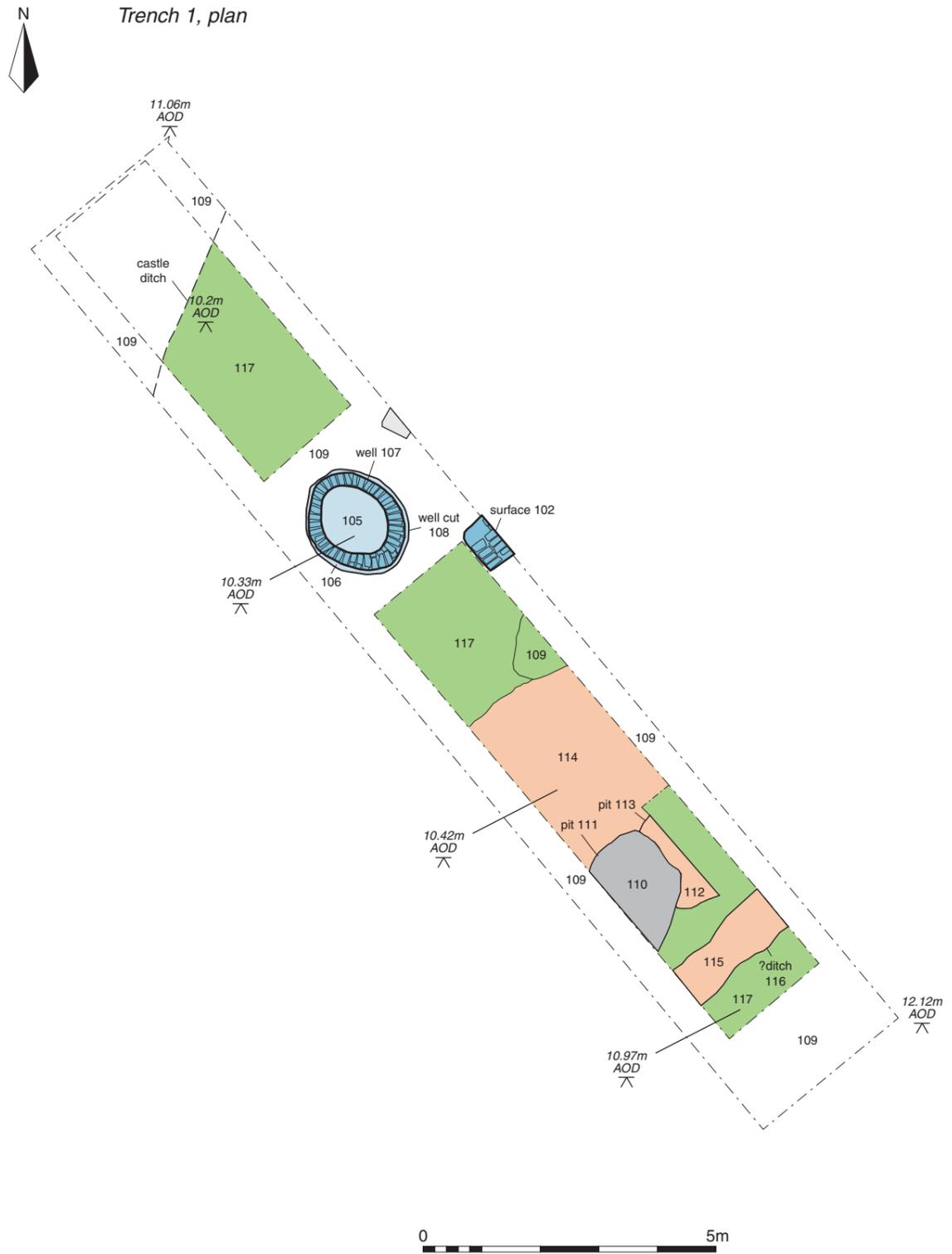
PROJECT TITLE
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FIGURE TITLE
 Plan of identified remains relating to layout of prison in 18th and 19th centuries (1852 Board of Health map)

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CHECKED BY	LM	DATE	09/06/2016	4
APPROVED BY	CMB	SCALE@A3	1:500	

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SO



Trench 1, looking north-west (1m scales)



Well 107, looking south-west (1m scale)

- medieval-early post-medieval
- C18 fill/deposit
- C19 fill/deposit
- C19 structure
- modern
- unphased

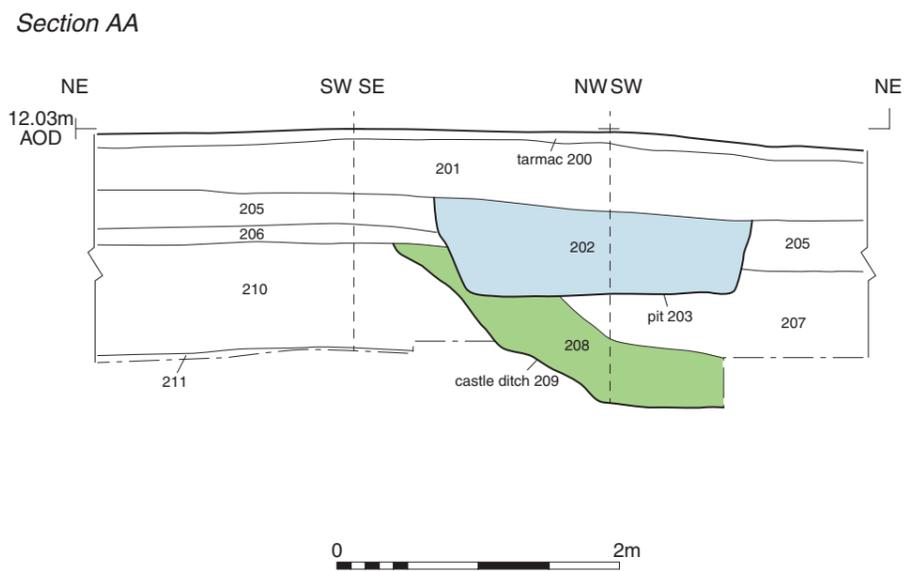
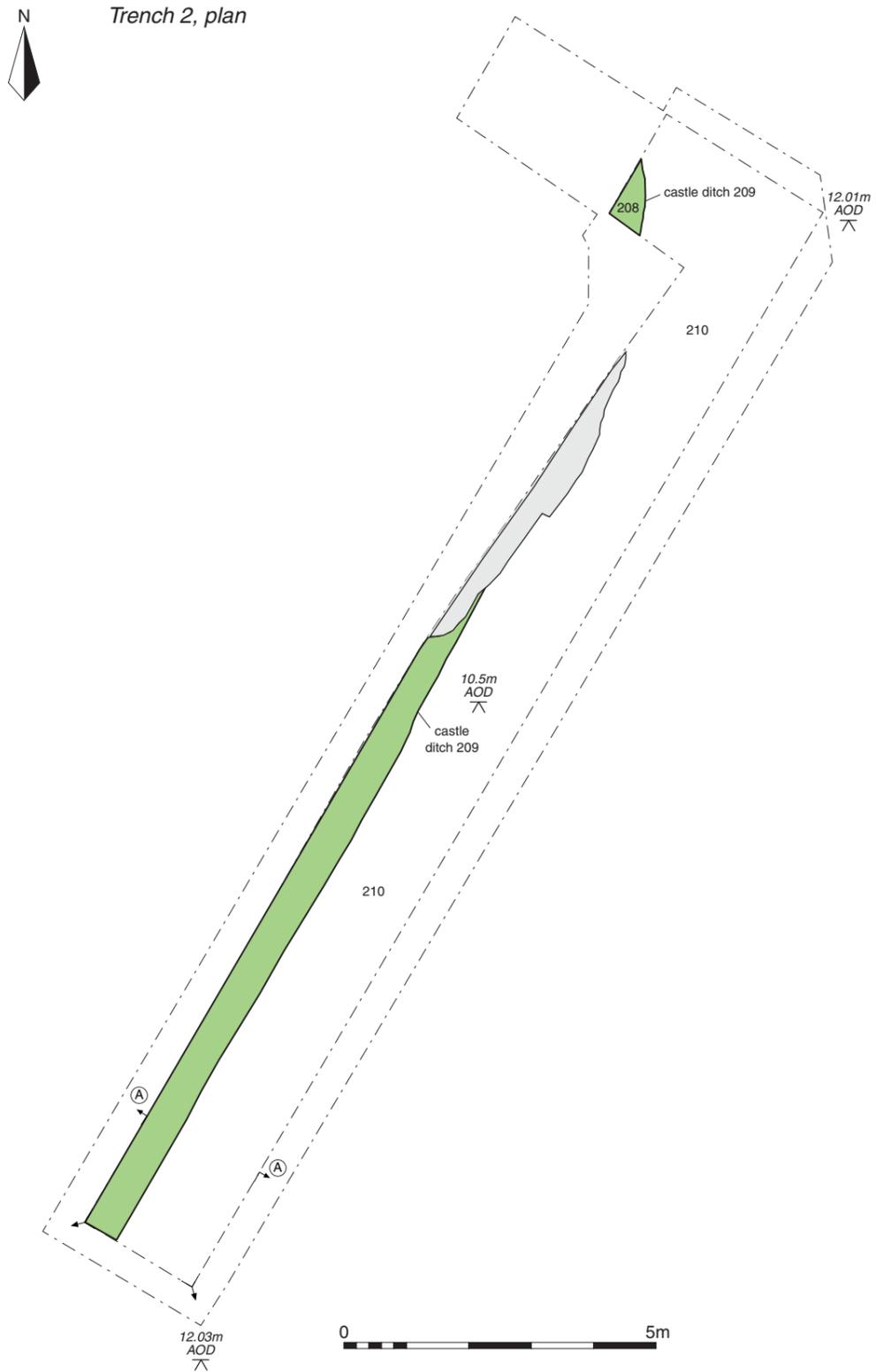
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PROJECT TITLE
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FIGURE TITLE
 Trench 1: Plan and photographs

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- medieval-early post-medieval
- C19 fill/deposit
- modern



Trench 2, looking north-east (1m scales)

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FIGURE TITLE
Trench 2: Plan, section and photograph

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 APPROVED BY CBM SCALE@A3 1:100 & 1:50 **6**



Trench 3, looking south-east, showing foundations and services associated with C wing (2m scale)



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FIGURE TITLE

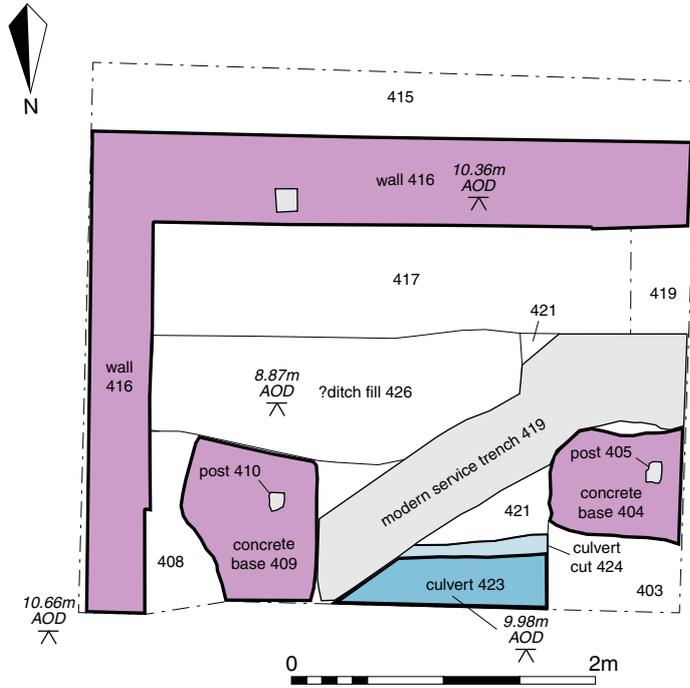
Trench 3: Photograph

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APPROVED BY	CMB	SCALE@A4	N/A

FIGURE NO.

7

Trench 4, plan



Trench 4, looking south (2m scale)

- C19 fill/deposit
- C19 structure
- C20
- modern



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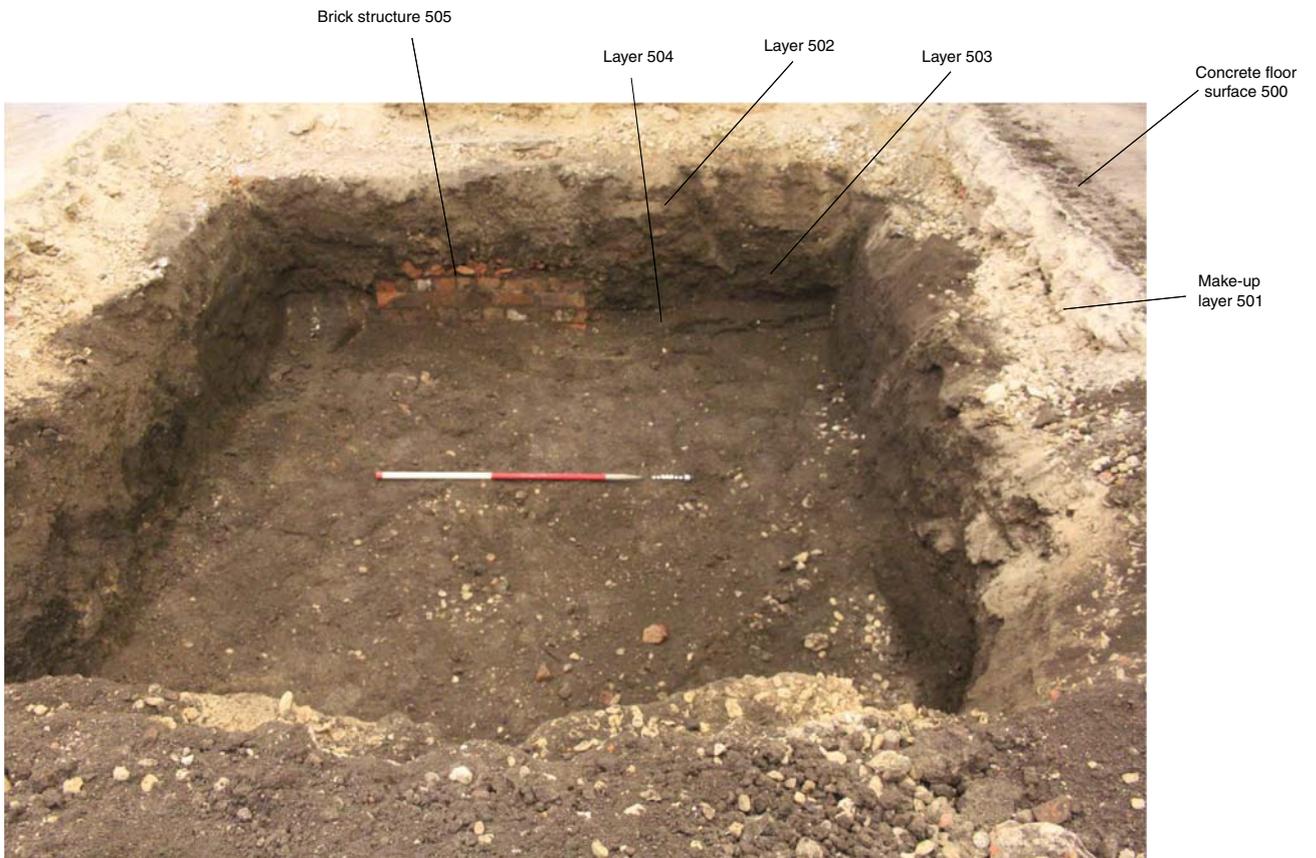
FIGURE TITLE

Trench 4: Plan and photograph

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FIGURE NO.

8



Trench 5, looking west, showing 19th-century garden soils (1m scale)



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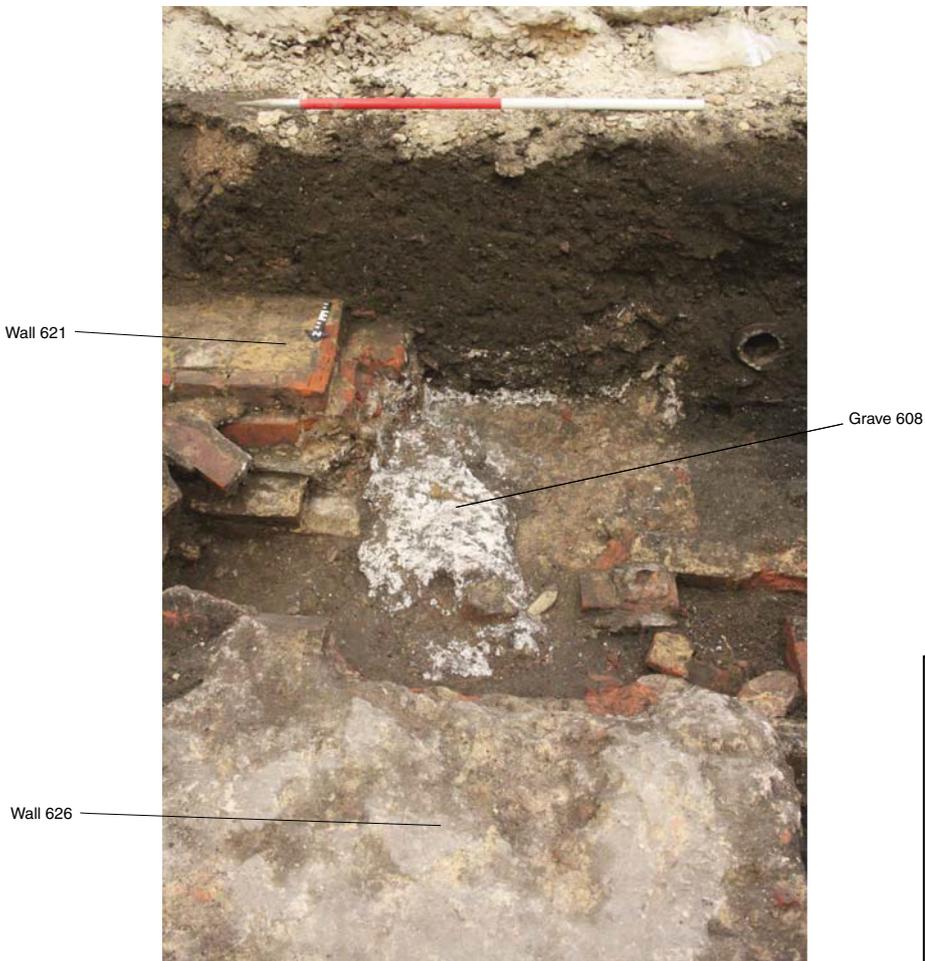
FIGURE TITLE

Trench 5: photograph

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APPROVED BY	CMB	SCALE@A4	N/A	



Trench 6, looking south, showing 19th-century walls, culvert and 20th-century grave (2m scale)



Grave 608, looking south (1m scale)

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	<hr/> PROJECT TITLE Former HMP Gloucester, Gloucester Gloucestershire
<hr/> FIGURE TITLE Trench 6: Photographs	
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Trench 7, looking south, showing 19th-century rebuild of prison perimeter wall (1m scales)



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FIGURE TITLE

Trench 7: Photograph

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FIGURE NO.

11



Trench 8, looking south-west, showing modern foundations of prison perimeter wall (1m scale)



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FIGURE TITLE

Trench 8: Photograph

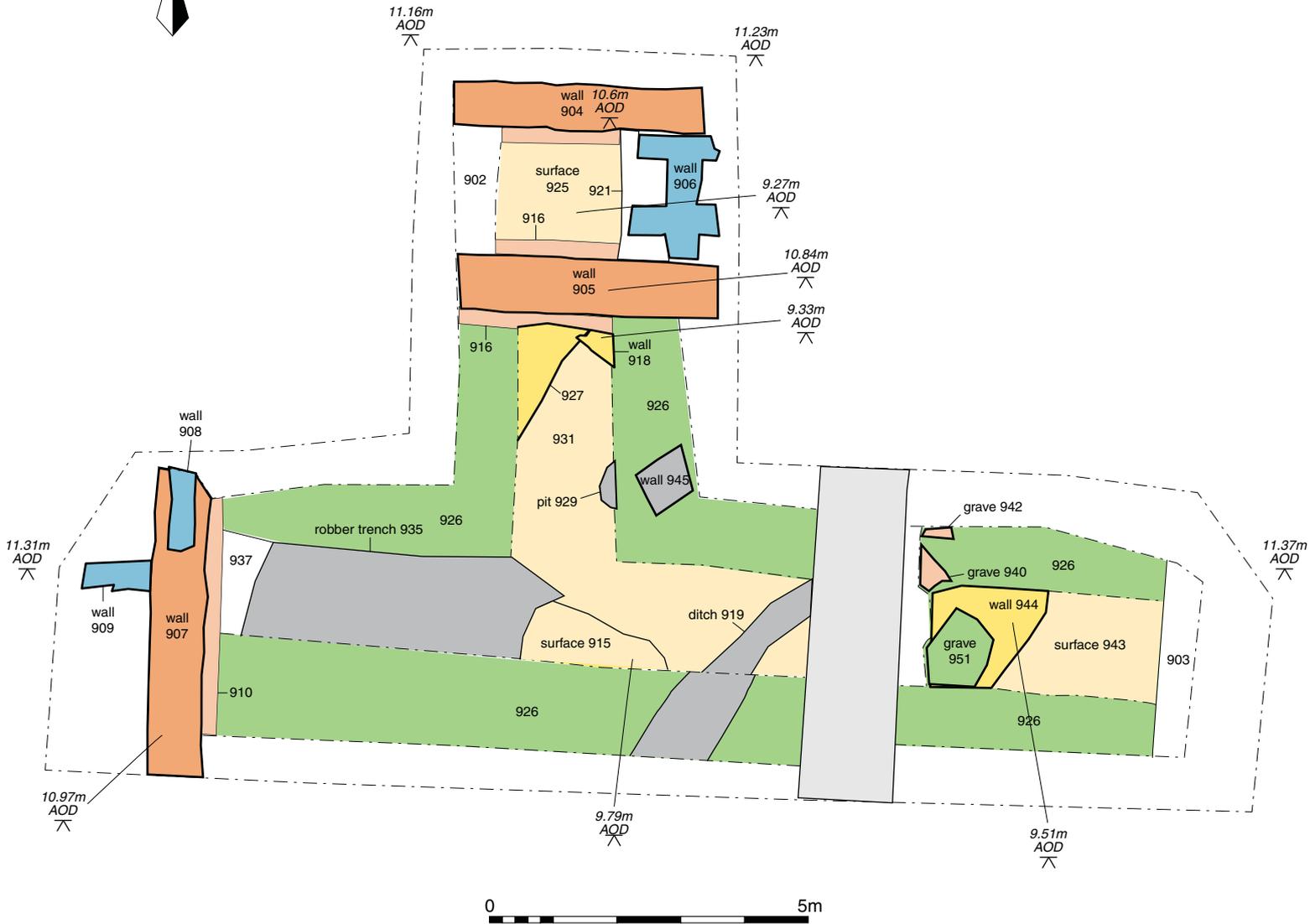
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FIGURE NO.

12



Trench 9, plan



- medieval fill/deposit
- medieval structure
- medieval-early post-medieval
- C18 deposit
- C18 structure
- C19 structure
- modern
- unphased



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FIGURE TITLE

Trench 9: Plan

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FIGURE NO.

13



Trench 9, looking north-west (2m scale)



Graves 940 and 942 (in section, top right of photograph), with burial pit 951 cutting inner bailey wall 944 in foreground; 1m scale)



Eastern end of Trench 9, showing inner bailey wall 944 (1m scales)



Trench 9 looking south, showing brick 18th-century prison walls and medieval surface 925 between (1m scale)


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FIGURE TITLE
Trench 9: Photographs

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APPROVED BY	CBM	SCALE@A3	N/A	14

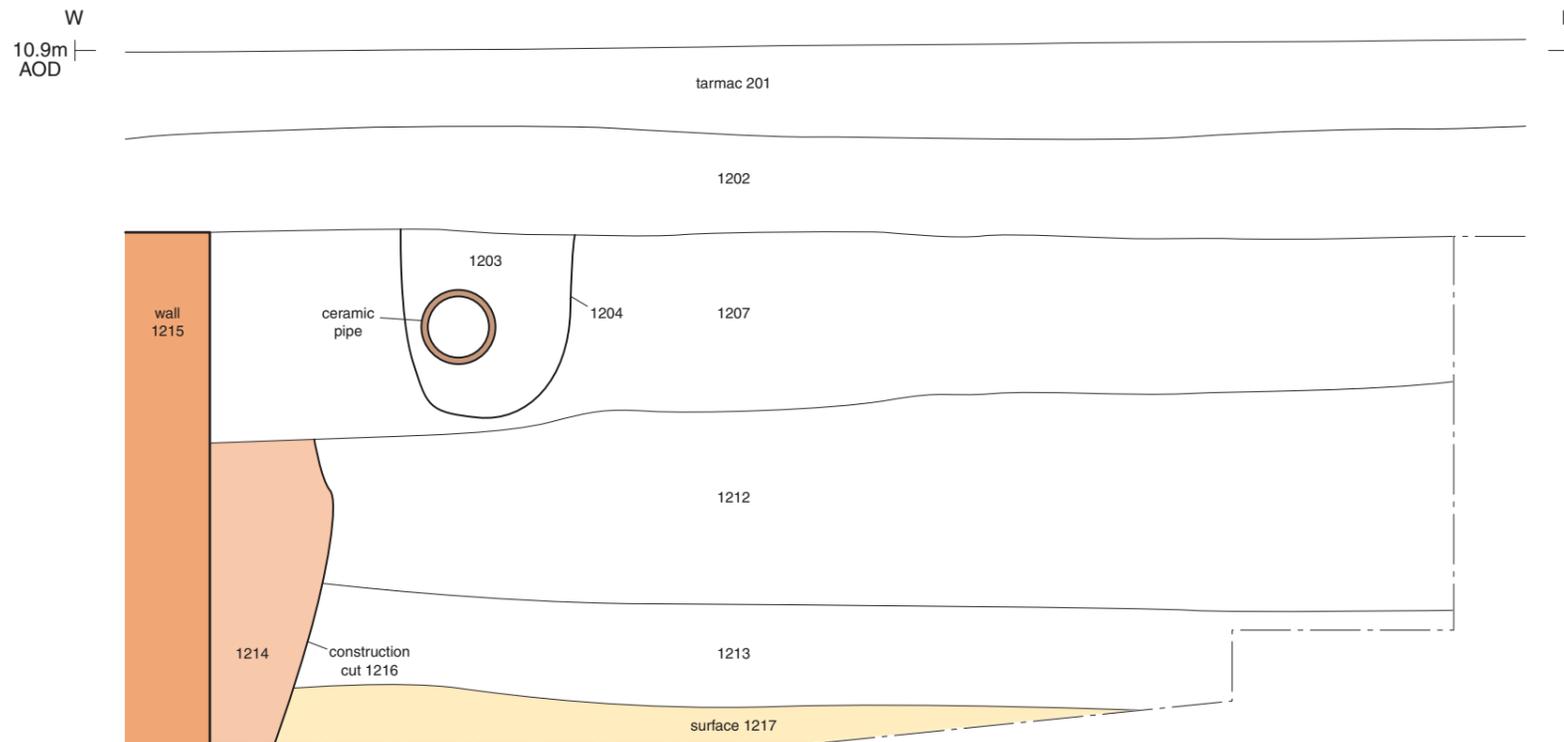


South-western face of keep wall 1110 (1m scale)



Deposits abutting keep wall 1110 (1m scale)

Section DD



Trench 12, looking west, showing medieval surface 1217 and 18th-century prison wall and culvert (2m scale)

- medieval fill/deposit
- C18 deposit
- C18 structure


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FIGURE TITLE
Trench 12: Section and photograph



Trench 13, looking north, showing foundations of 19th-century treadmill and later rebuilds (1m scale)



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FIGURE TITLE

Trench 13: Photograph

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 APPROVED BY CMB SCALE@A4 N/A

FIGURE NO.

19



Trench 14, looking north, showing foundations of 19th-century treadmill and later rebuilds (1m scales)



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PROJECT TITLE

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FIGURE TITLE

Trench 14: Photograph

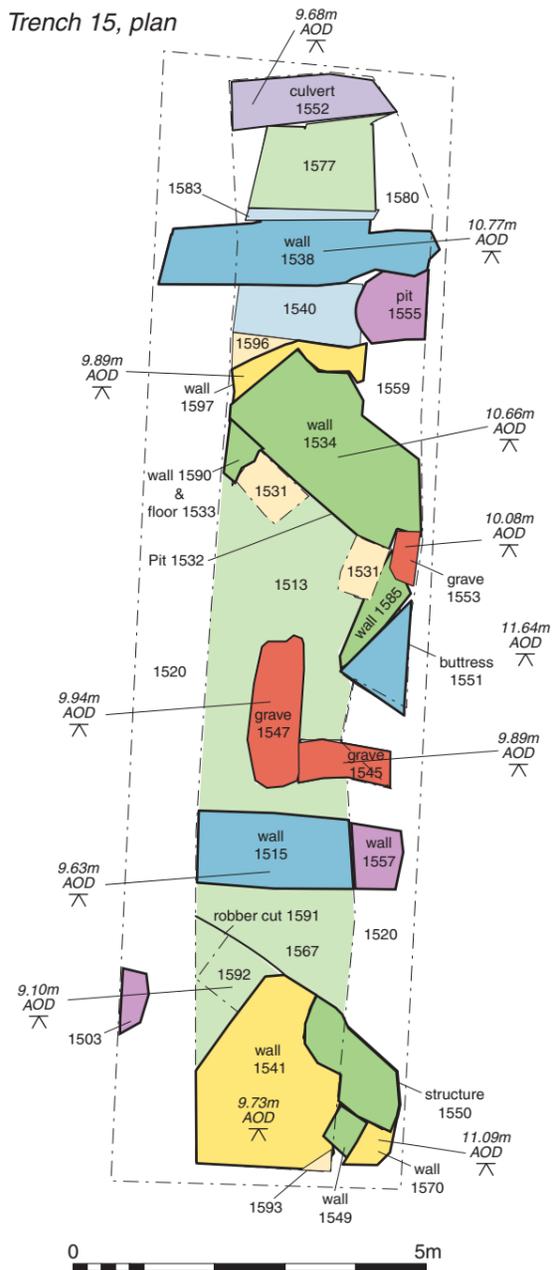
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 CHECKED BY LM/DJB DATE 17/11/2015
 APPROVED BY CMB SCALE@A4 N/A

FIGURE NO.

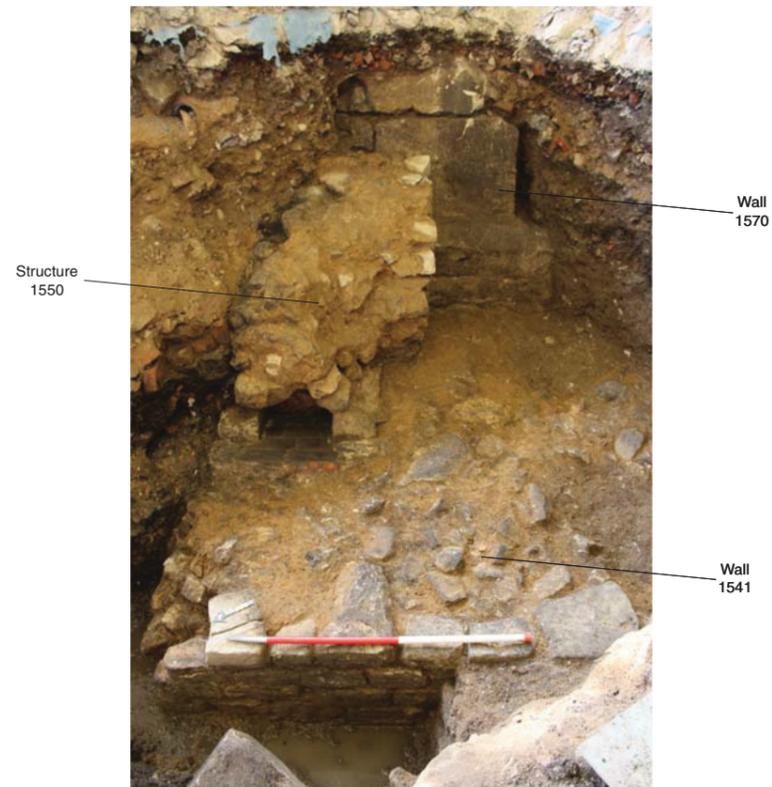
20



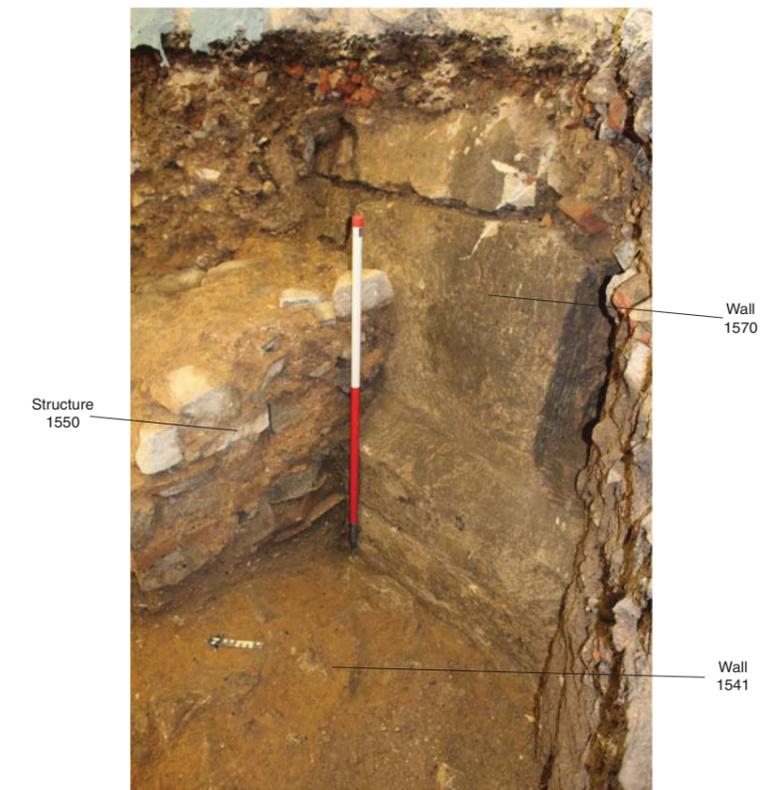
Trench 15, plan



Trench 15, looking south-west



Walls 1541, 1570 and structure 1550, looking south-east (1m scale)



Western face of keep wall 1570 abutted by structure 1550, looking east (1m scale)

- medieval fill/deposit
- medieval keep wall
- medieval-early post-medieval fill/deposit
- medieval-early post-medieval structure
- grave
- C18 fill/deposit
- C19 deposit
- C19 structure
- C20

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FIGURE TITLE
Trench 15: Plan and photographs



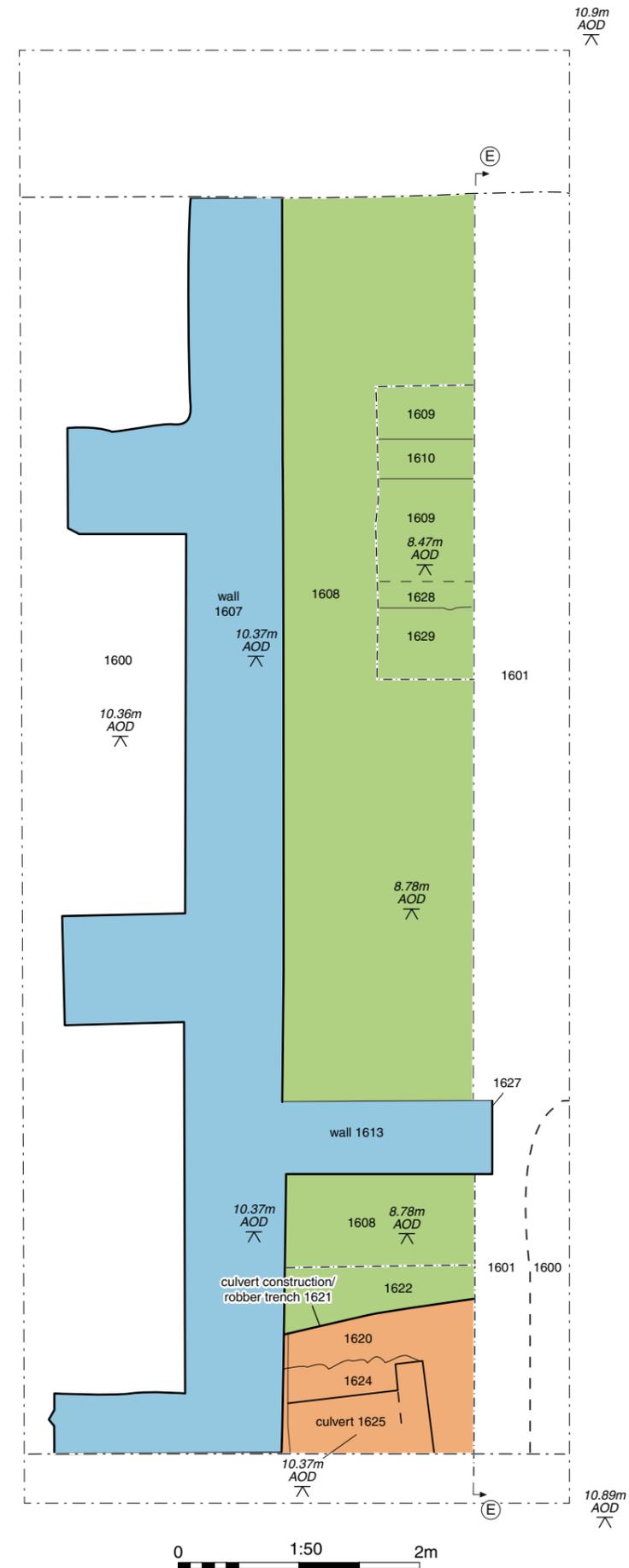
Trench 16 looking north-east (1m scale x2)



Southern end of Trench 16, showing wall 1613 and culvert 1625, looking north-east (1m scale)



Trench 16 machine-excavated sondage, showing tipped deposits 1608, 1609, 1611, 1628 and 1629 looking east (1m scale)



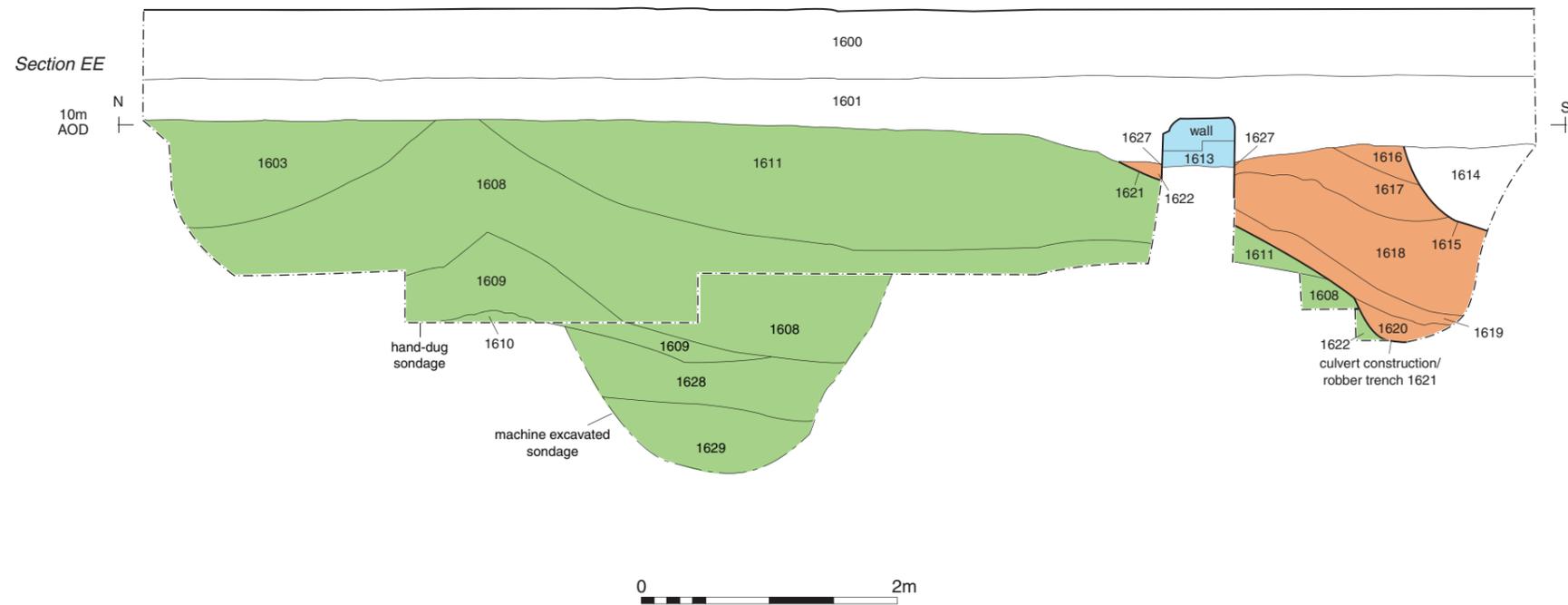
- medieval-early post-medieval
- C18 structure
- C19 structure


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FIGURE TITLE
Trench 16: Plan & photographs

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- medieval-early post-medieval
- C18 structure
- C19 structure


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FIGURE TITLE
Trench 16: Section

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Mechanical excavation of Trench 6, looking east



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FIGURE TITLE

Photograph

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FIGURE NO.

24



Trenches 10 and 11, looking north-west (2m scale)



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FIGURE TITLE

Photograph

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FIGURE NO.

25



Augering adjacent to internal wall 1026 in Trench 10



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FIGURE TITLE

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FIGURE NO.

26



Augering adjacent to keep wall 1110 in Trench 11



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Photograph

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FIGURE NO.

27

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